ORDER NO. VMD9812072C3

Service Manual

Digital Video Camcorder

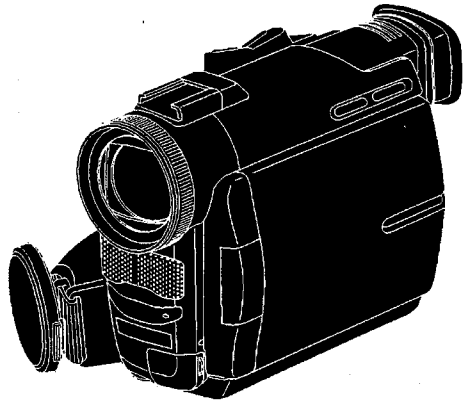
Digital Palmcorder®

Mini DV DIGITAL 6

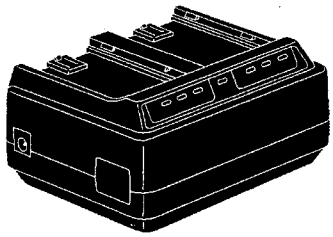
PalmSight™

PV-DV910

PV-DAC9



Model: PV-DV910D



Model: PV-DAC9-A

SPECIFICATIONS

ITEM	SPECIFICATION
Power Source	Digital Video Camera: 7.2V DC (Battery) 7.8V DC (AC Adaptor) AC Adaptor: 110/120/220/240V AC, 50/60 Hz Battery: Lithium-Ion Type DC 7.2V
Power Consumption	Digital Video Camera: 7.2V DC 7W (Max. 10W) AC Adaptor: 18W 1W (when not in use.)
Video Signal	EIA Standard (525 lines, 60 fields) NTSC color signal
Video Recording System	2 rotary heads. helical scanning system
Audio	12 bit (32 kHz) 4 tracks 16 bit (48 kHz) 2 tracks
Pick-Up System and Device	One integral color filter Charge Coupled Device (CCD)
Lens	18:1 zoom lens, F1:1.6 with auto iris control Focal length: 3.9 mm - 70.2 mm Power zoom function Lens filter diameter: 43 mm

ITEM	SPECIFICATION
Viewfinder	0.45 inch (11.4 mm) Liquid Crystal Color Electronic Viewfinder
LCD Monitor	3 inch (76.2 mm) Liquid Crystal Display
Minimum Illumination Required	5 lx (F1:1.6) 0.5 footcandles
Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Operating Humidity	10% ~ 75%
Weight	Digital Video Camera: 1.4 lbs. 0.66 kg AC Adaptor: 0.53 lbs. 0.24 kg
Dimensions	Digital Video Camera: 2-15/16 (W) x 4-1/4 (H) x 5-11/16 (D) inch 73.5 (W) x 107.5 (H) x 145 (D) mm AC Adaptor: 4-1/16 (W) x 2 (H) x 3-1/8 (D) inch 103 (W) x 50 (H) x 79 (D) mm

Weight and dimensions shown are approximate.
Designs and specifications are subject to change without notice.

Panasonic®

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

TABLE OF CONTENTS

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. **IMPORTANT SAFETY NOTICE**
   There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1M ohm and 5.2M ohm. When the exposed metal does not have a return path to the chassis, the reading must be infinity.

LEAKAGE CURRENT HOT CHECK (See figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k ohm, 10 watts resistor, in parallel with a 0.15 micro farad capacitor, between each exposed metallic part on the set and a good earth ground, as shown in figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

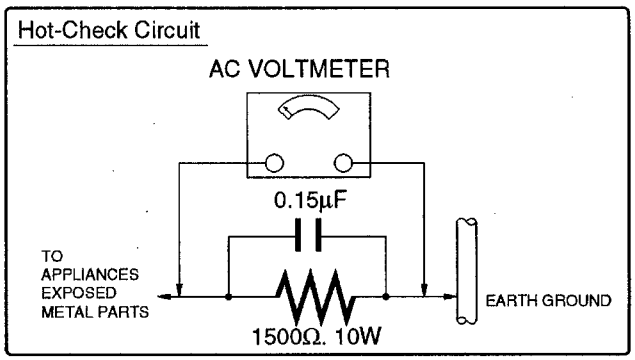


Figure. 1

PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION :
Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

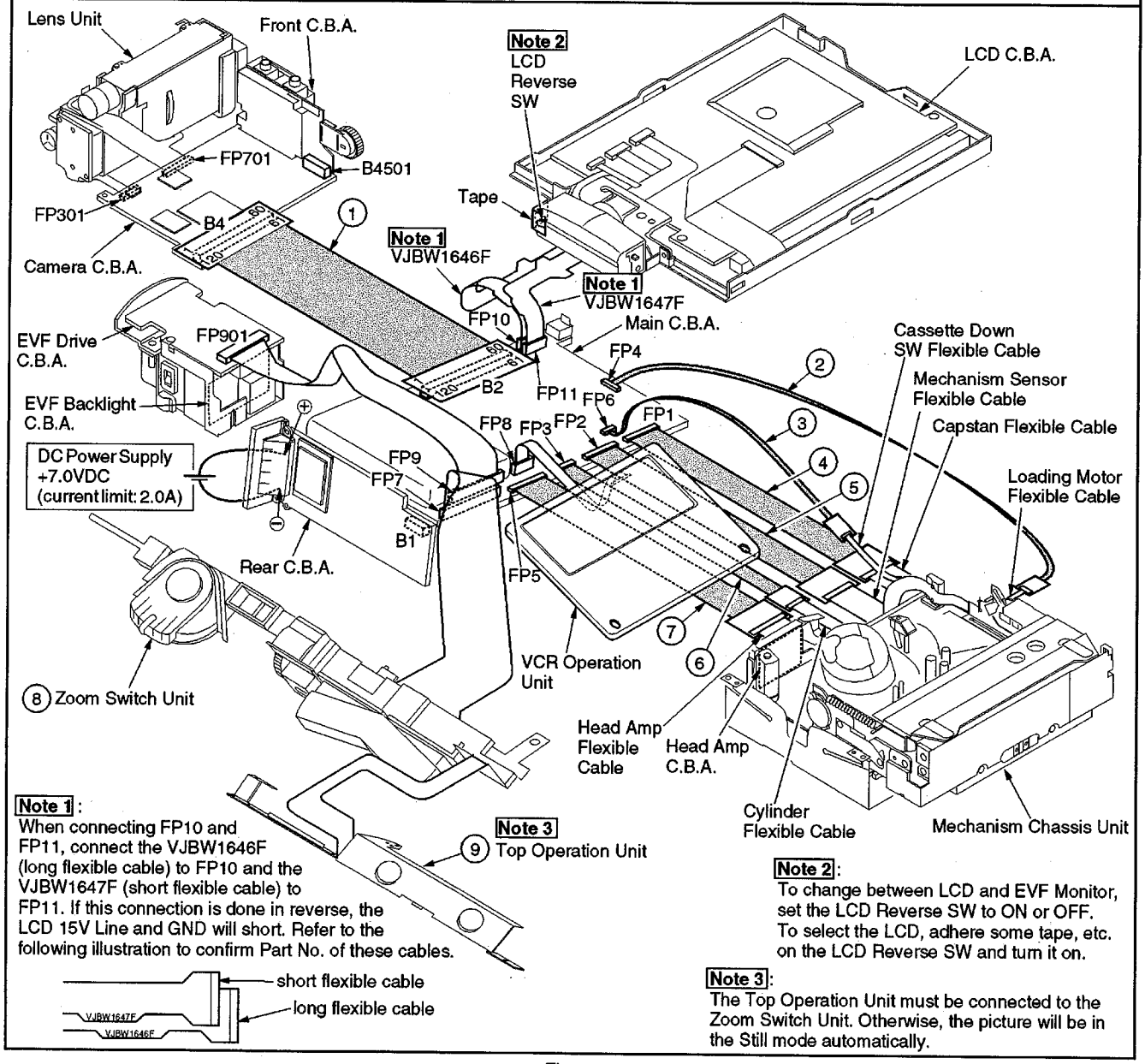
SERVICE NOTES

EXTENSION CABLES FOR SERVICE

Use the following Extension Cables when checking and servicing the unit.

Note : 1. When unplugging or plugging in connectors use extreme caution.
2. Use a grounded ESD wrist strap while disassembling the camera portion.
3. Adjust the DC Power supply to 7.0V DC and set the current limit to 2.0A.

NO.	PART NO.	PART NAME	CONNECTION
①	LSUA0014	120Pin Extension Cable	B2 on the Main C.B.A. ~ B4 on the Camera C.B.A.
②	LSUA0019	8Pin Extension Cable	FP4 on the Main C.B.A. ~ Loading Motor Flexible Cable on Mechanism Chassis Unit
③	LSUA0015	5Pin Extension Cable	FP6 on the Main C.B.A. ~ Cassette Down SW Flexible Cable on Mechanism Chassis Unit
④	LSUA0017	18Pin Extension Cable	FP1 on the Main C.B.A. ~ Capstan Flexible Cable on Mechanism Chassis Unit
⑤	LSUA0017	18Pin Extension Cable	FP2 on the Main C.B.A. ~ Mechanism Sensor Flexible Cable on Mechanism Chassis Unit
⑥	LSUA0016	10Pin Extension Cable	FP3 on the Main C.B.A. ~ Cylinder Flexible Cable on Mechanism Chassis Unit
⑦	LSUA0018	24Pin Extension Cable	FP5 on the Main C.B.A. ~ Head Amp Flexible Cable on Mechanism Chassis Unit
⑧	VEQW0285	Zoom Switch Unit	FP7 on the Main C.B.A. ~ Zoom Switch Unit
⑨	VEQW0286	Top Operation Unit	Zoom Switch Unit ~ Top Operation Unit



Note 1:
When connecting FP10 and FP11, connect the VJBW1646F (long flexible cable) to FP10 and the VJBW1647F (short flexible cable) to FP11. If this connection is done in reverse, the LCD 15V Line and GND will short. Refer to the following illustration to confirm Part No. of these cables.

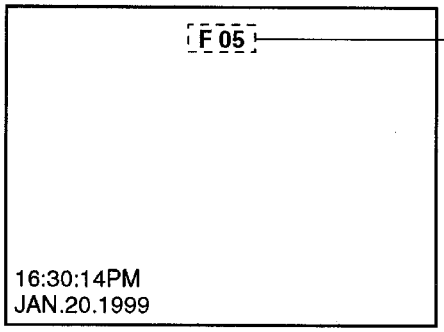
Note 2:
To change between LCD and EVF Monitor, set the LCD Reverse SW to ON or OFF. To select the LCD, adhere some tape, etc. on the LCD Reverse SW and turn it on.

Note 3:
The Top Operation Unit must be connected to the Zoom Switch Unit. Otherwise, the picture will be in the Still mode automatically.

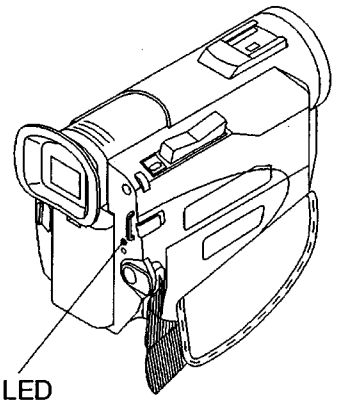
Fig. 1

SIMPLIFIED FAULT FINDING DATA (SELF-DIAGNOSTIC SYSTEM)

When following conditions occur, the fault code will be displayed on the EVF or LCD Monitor.
Also, the Power LED will flash according to the fault code as follows.



EVF or LCD Monitor



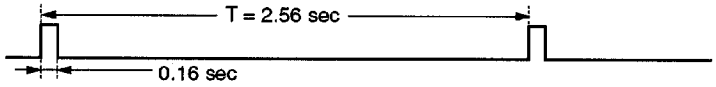
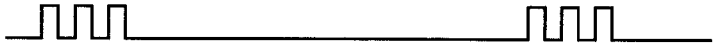
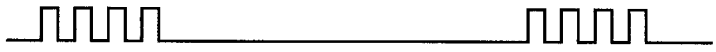
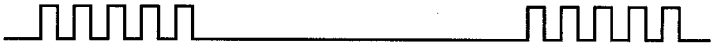
FAULT CODE	CONDITION	POWER LED FLASHING TIMING & POWER OFF TIMING
F01	T-Reel Lock	After 1 minute flash, power will be turned off. 
F02	S-Reel Lock	After 1 minute flash, power will be turned off. 
F03	Unloading Lock	After 1 minute flash, power will be turned off. 
F04	Loading Lock	After 1 minute flash, power will be turned off. 
F05	Cylinder Lock	After 1 minute flash, power will be turned off. 
F31	Data Transmission Error	----------
F51	Focus Motor Lock	Power LED flashes at 1 Hz timing.
F52	Zoom Motor Lock	Power LED flashes at 1 Hz timing.
U10	Dew Detection	After 18 seconds flash at 1 Hz timing, power will be turned off.
U11	Head Clogging	----------

Fig. 2

Note:
Fault Code (F01 ~ F05, U10) will be displayed again with power SW OFF and ON while the Battery remains.
(Once the Battery is removed or dead, fault code will not be memorized.)

HOW TO REMOVE A JAMMED TAPE

CAUTION:
If loading does not start after DC Power Supply is applied, DO NOT continue to applying DC Power Supply.

(1) Remove the Cabinet Parts as shown in the "Disassembly/ Assembly Procedures of Cabinet."
(2) Apply +2VDC Power Supply (DC+ to Portion "A", DC- to Portion "B"). When the Loading Posts reach the fully unloaded position, remove the Power Supply.

Note: If the Cassette Up Unit is ejected completely, the DV Cassette Tape may be damaged.

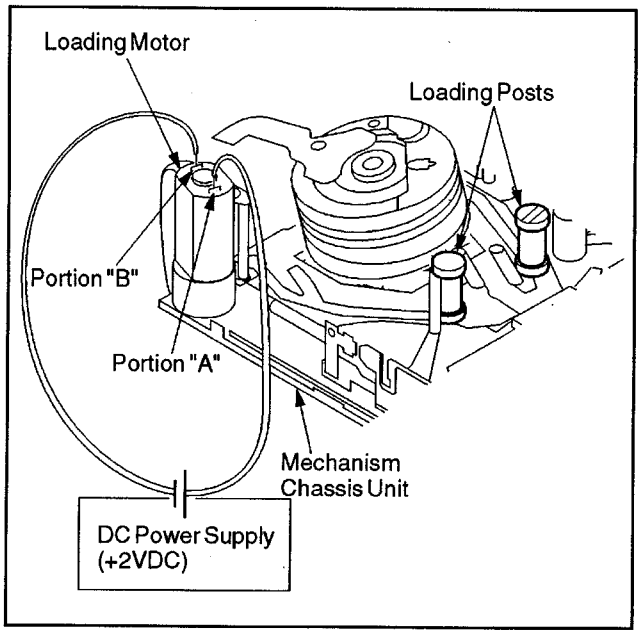


Fig. 3-1

(3) Rewind the tape into the DV Cassette Tape by turning the Capstan Rotor counterclockwise.

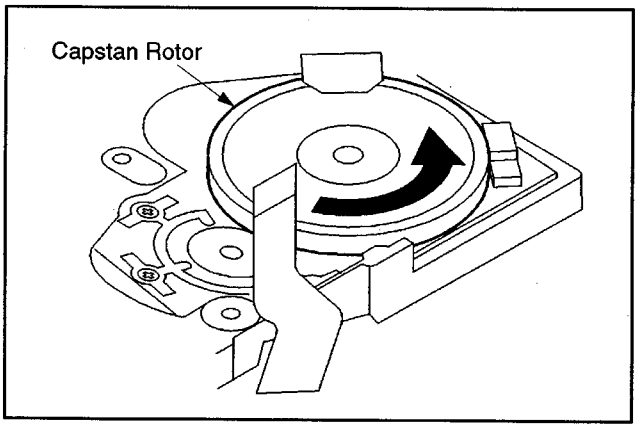


Fig. 3-2

(4) Eject the DV Cassette Tape by applying +2VDC Power Supply again.
(5) Remove the DV Cassette Tape from the Cassette Up Unit.

MAIN/CAMERA C.B.A.

Main/Camera C.B.A. consists of Main and Camera C.B.A.s. When servicing, replace both C.B.A.s at the same time.

Note:
When replacing the Main and Camera C.B.A.s, confirm that both Serial Numbers are the same.

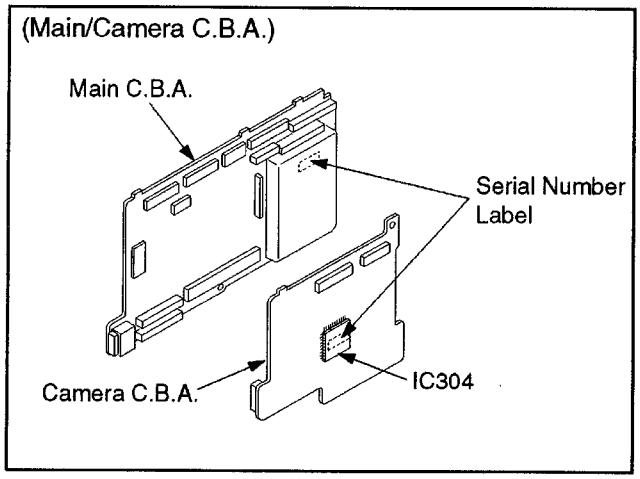


Fig. 4

SHORT JIG C.B.A.

CAUTION:
Be sure to attach the Short JIG C.B.A. to protect the microcontroller (IC2001) after servicing.

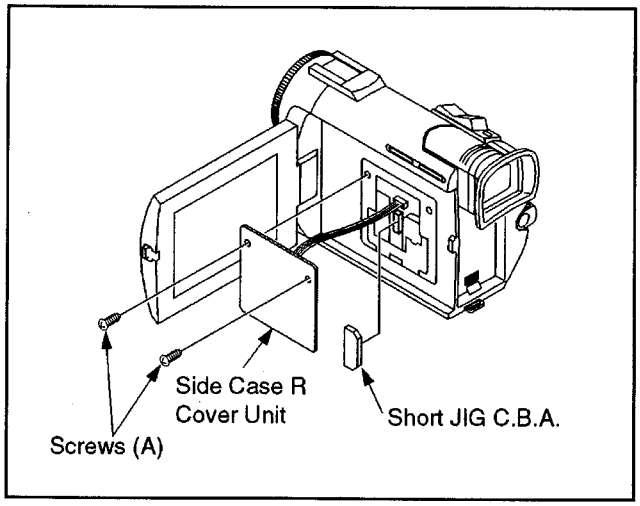


Fig. 5

HOW TO USE THE DVC HEAD CLEANING TAPE / LSUQ0003

Please use the cleaning tape as described below.

Note: This cleaning tape has a total playback time of 45 minutes. Once used, it is not reusable.

1. Confirm the picture.
   NG
2. Playback the cleaning tape for 20 seconds.
3. Confirm the picture again. — **OK** → Playback any normal DVC tape for 20 minutes or over.
   NG
4. Playback the cleaning tape for 20 seconds.
5. Confirm the picture again. — **OK** → Playback any normal DVC tape for 20 minutes or over.
   NG
6. Playback the cleaning tape for 20 seconds.
7. Confirm the picture again. — **OK** → Playback any normal DVC tape for 20 minutes or over.
   NG
8. Replace the Cylinder Unit

OK

The picture will look like this in case of clogged video head.

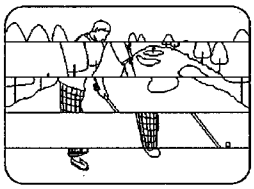
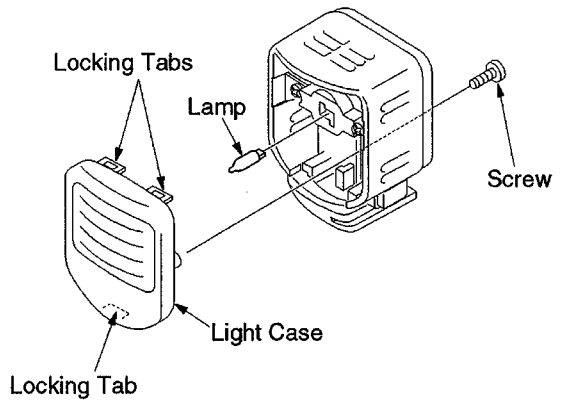


Fig. 6

HOW TO REPLACE THE LAMP (VLLW0023) OF ENHANCEMENT LIGHT UNIT

DANGER:
To prevent possible burn hazard, disconnect this unit and allow lamp to cool before replacing. Replace only with VLLW0023 lamp, to reduce the risk of fire.



Note :
When installing the Lamp, do not touch the surface of Lamp directly. Use a clean cloth or tissue to install the Lamp.

Fig. 7

REPLACEMENT PROCEDURE FOR LEADLESS (CHIP) COMPONENT

The following procedures are recommended for the replacement of the leadless components used in this Unit.

1. Preparation for replacement
   a. Soldering Iron
      Use a pencil-type soldering iron using less than 30 watts.
   b. Solder
      Eutectic Solder (Tin 63%, Lead 37%) is recommended.
   c. Soldering time
      Do not apply heat for more than 4 seconds.
   d. Preheating
      Leadless capacitor must be preheated before installation.
      (130°C ~ 150°C, for about two minutes.)

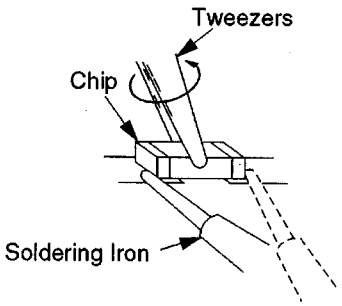
Note :

a. Leadless component must not be reused after removal.
b. Excessive mechanical stress and rubbing of the component electrode must be avoided.

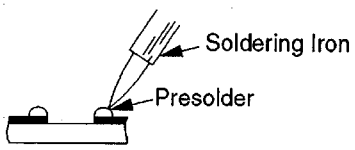
2. Removing the leadless component
   Grasp the leadless component body with tweezers and alternately apply heat to both electrodes. When the solder on both electrodes is melted, remove leadless component with a twisting motion.

Note :

a. Do not attempt to lift the component off the board until the component is completely disconnected from the board by a twisting action. The leadless component is attached to the PCB with glue. So carefully twist the component when removing it so as not to break or damage any fail under the component.
b. Take care not to break the copper foil on the printed board.

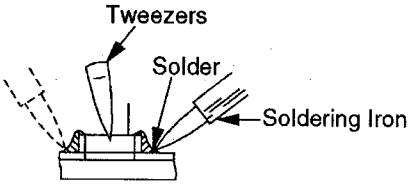


3. Installation of the leadless component
   a. Presolder the contact points of the circuit board.
   b. Press the part downward with tweezers and solder both electrodes as shown below.



Note :

Do not glue the replacement leadless component to the circuit board.

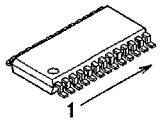


SPECIAL NOTE

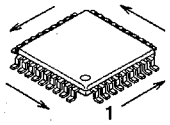
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handlings techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

IC, TRANSISTOR AND CHIP PART INFORMATION

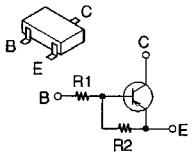
GENERAL C.B.A./ASS'Y PARTS



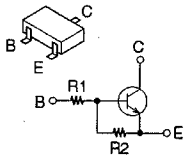
LU5K6B84,
NJM2902M-TE1,
NJU7034M-TE1,
NJM2112V-TE1



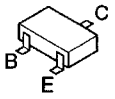
AN2522FHPA,
AN2522NFHP,
AN2537FHQ,
AN3731FHQ



UN5114 (R1=10K, R2=47K),
DTA114YU (R1=10K, R2=47K),
UN5116 (R1=4.7K, R2=OPEN),
DTA143TU (R1=4.7K, R2=OPEN)



DTC144EU(R1=47K, R2=47K),
MUN5213(R1=47K, R2=47K),
UN5213(R1=47K, R2=47K),
DTC124EU(R1=22K, R2=22K),
MUN5212T1(R1=22K, R2=22K),
UN5212(R1=22K, R2=22K),
UN2211(R1=10K, R2=10K)

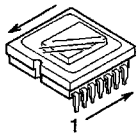


MSD1819A, 2SD1819,
2SD1819A, 2SD1819AI,
2SC3929, 2SC4081LNTE,
2SB709, 2SC4081T106R,
MSB1218A, 2SA1576T106R,
2SB1218A, 2SB1218AI,
2SB1585, 2SB970, 2SB709AI,
2SA1037K146R, 2SB709A,
2SC3931, 2SK1580, 2SC3937,
2SD1938F, XP162A01B5PR,
2SD1119, 2SD2150T100R,
2SK1299STL

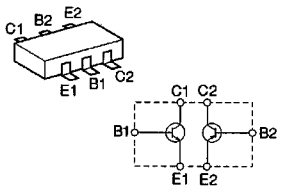
FRONT C.B.A.

VEK8283

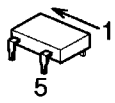
CCD C.B.A.



MN37290FT

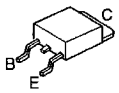


XN4601



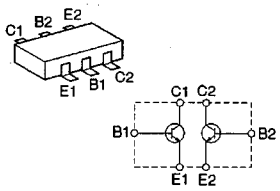
XC6365C503MR, TA75S558F85L,
TC7S14FTE85L, TC7S08FTE85R

REAR C.B.A.



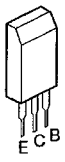
2SA1615-ZT1K,
2SA1615-ZT1L,
2SA1834TLR,
2SA1834TLS

ELECTRONIC VIEWFINDER DRIVE C.B.A.

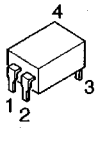


XN1501,
FMW1T148

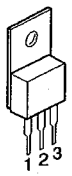
AC ADAPTOR



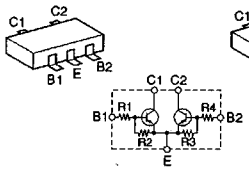
2SA1897-TK



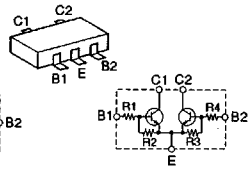
PC817AB,
PS2501-1W



MIP0224SY



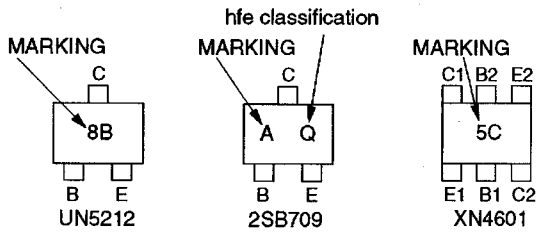
XN1114
(R1/R4=10K,
R2/R3=47K)



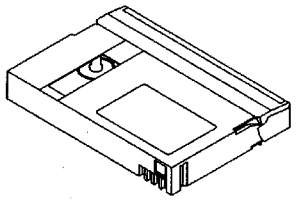
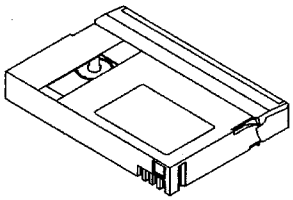
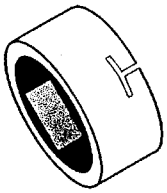
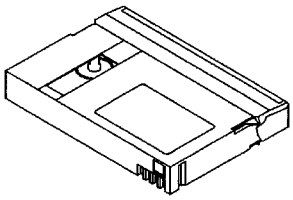
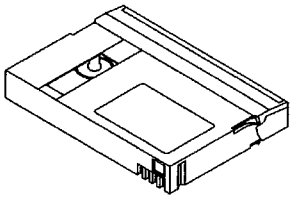
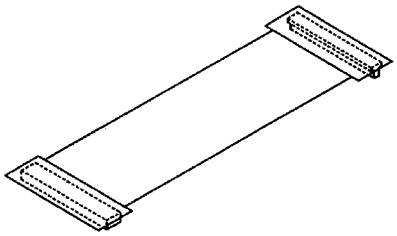
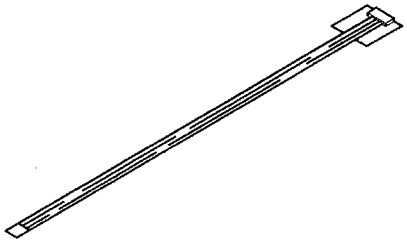
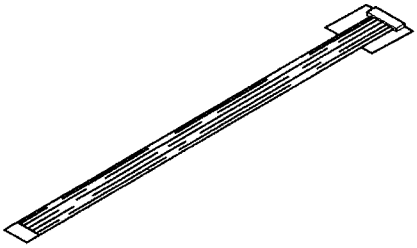
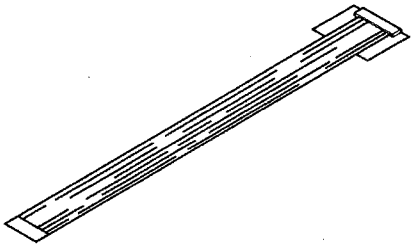
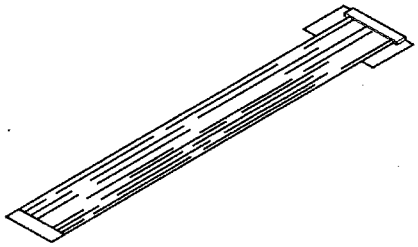
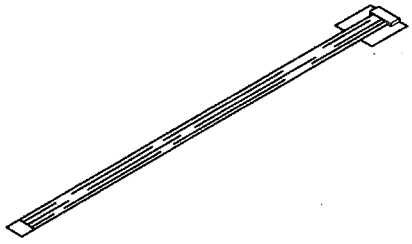
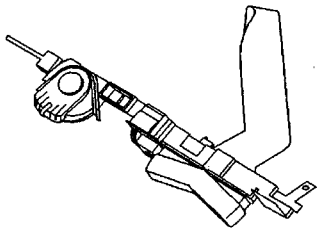
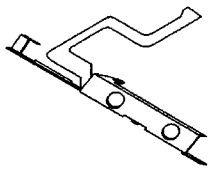
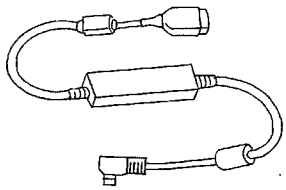
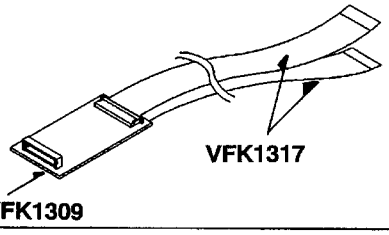
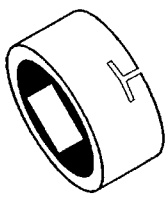
XN1211
(R1/R2/R3/R4=10K),
XN1214
(R1/R4=10K, R2/R3=47K)

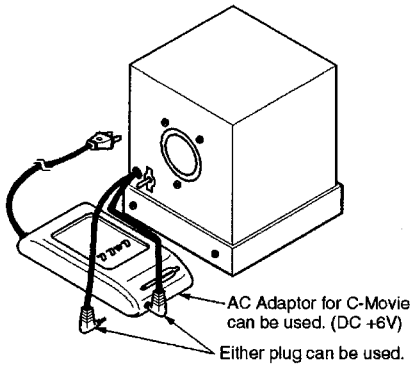
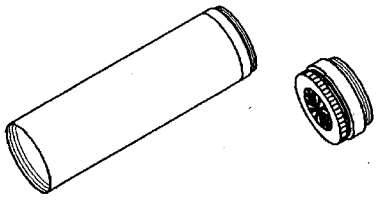
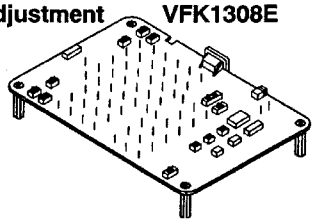
HOW TO READ THE IDENTIFICATION MARK OF CHIP COMPONENTS.

MARKING	PART NO.	MARKING	PART NO.
A	2SB709	9H	XN1214
B	2SB709A	Z	2SD1819A
6D	UN5114	Y	2SD1819
6F	UN5116	B	2SB1218A
8C	UN5213	1R	2SB970
8B	UN5212	U	2SC3931
5R	XN1501	2W	2SC3937
5C	XN4601	S	2SC3929
7Q	XN1114	1R	2SB1585
9K	XN1211	T	2SD1119
8A	UN2211	MC	MA143
MO	MA142WA	1B	MA111
8C	MUN5213	2A	MA728
AG1	SSB14-LT	A61	MA720



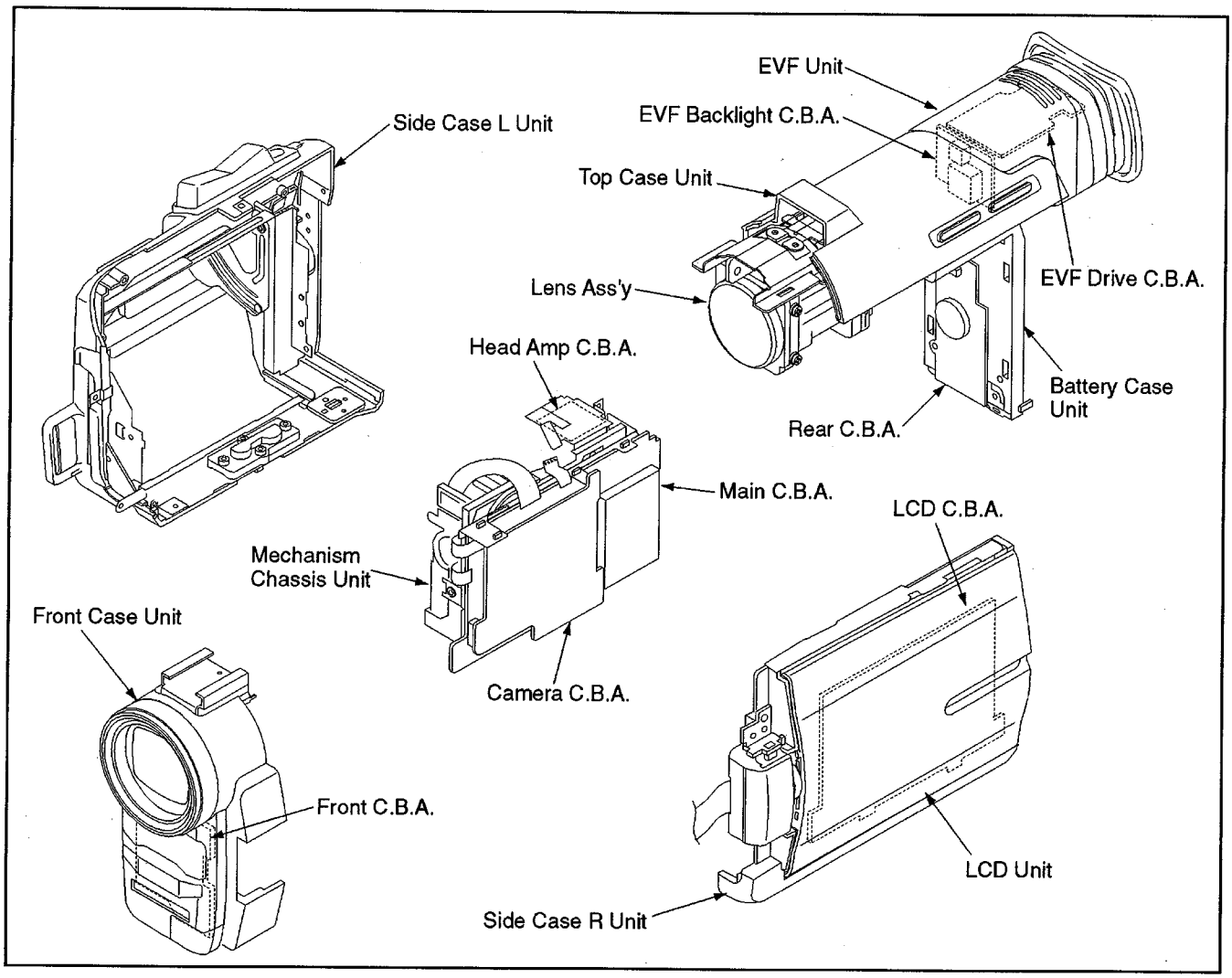
SERVICE FIXTURES & TOOLS

49% Transmission Tape VFK1217 	**Color Bar Standard Tape** VFM3010EHS (Keeping condition: Keep at 18°C ~ 28°C) 	**Color Bar Chart** VFK1164TFCB2 
DVC Head Cleaning Tape LSUQ0003 	**Reel FG Adjustment Cassette (Refer to page 3-3 " How to make the Reel FG Adj. Cassette".)** 	**Extension Cable 120P** LSUA0014 
Extension Cable 5P LSUA0015 	**Extension Cable 10P** LSUA0016 	**Extension Cable 18P** LSUA0017 
Extension Cable 24P LSUA0018 	**Extension Cable 8P** LSUA0019 	**Zoom Switch Unit** VEQW0285 
Top Operation Unit VEQW0286 	**Inter Link Cable** VFK1395 	**Camera Connecting Cable** VFK1309 VFK1317 
White Chart VFK1164TFWC2 		

Light Box and AC Adaptor **VFKS002Y**  **(AC Adaptor is not supplied)**	**Infinity Lens (with Focus Chart)** **VFK1164TCM02** 	**43mm Ring** **VFK1164TAR43** 
	Interface Board for Electrical Adjustment **VFK1308E** 	**Color Conversion Filter (C14)** **VFK1164TFCT2** 

DISASSEMBLY/ASSEMBLY PROCEDURES

CIRCUIT BOARD LOCATION



DISASSEMBLY/ASSEMBLY PROCEDURES OF CABINET

DISASSEMBLY FLOW CHART

This flow chart indicates the disassembly steps of the cabinet parts and the P.C.Boards in order to gain access to item (s) to be serviced. When reassembling, perform the step (s) in the reverse order. Bend, route and dress the wires as they were originally.

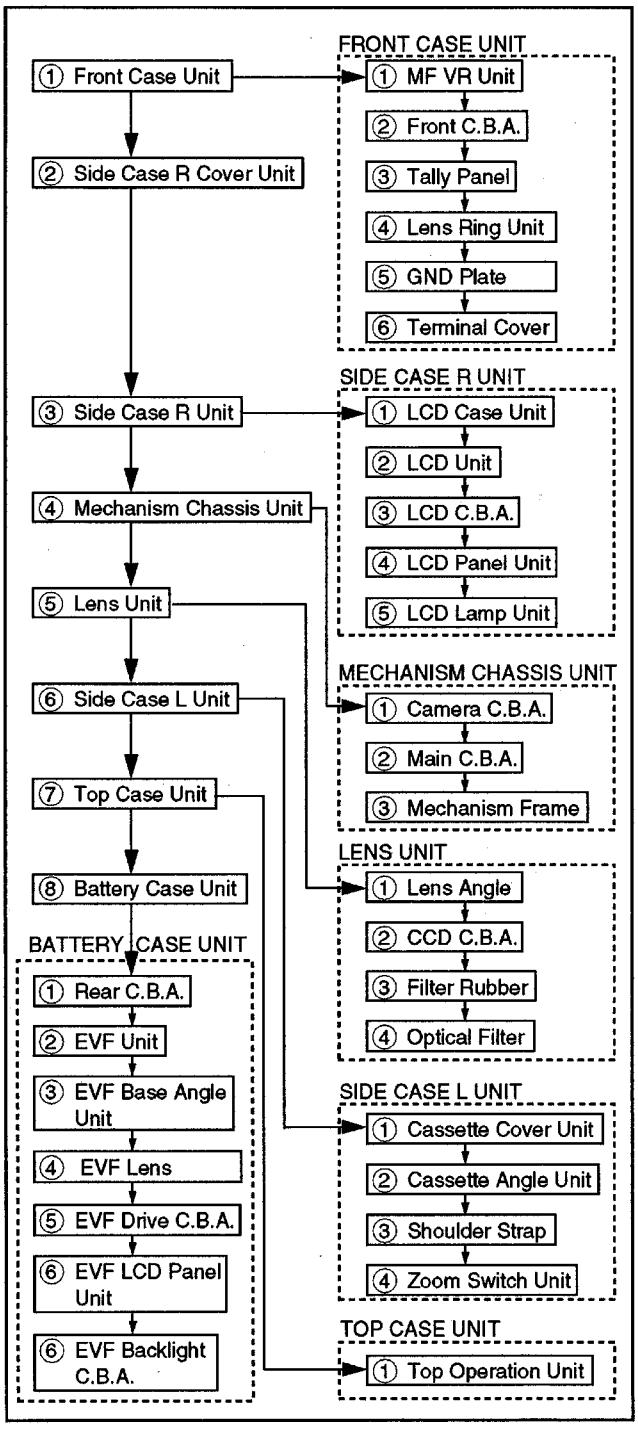


Fig. D1

DISASSEMBLY METHOD

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Front Case Unit	D2	(S-1), 4(S-2), Left Cover, Connector B4501, Connector B4801
②	Side Case R Cover Unit	D3	2(S-3), 2(L-1) Connector FP8
③	Side Case R Unit	D4	8(S-4), Connector FP10, FP11
④	Mechanism Chassis Unit	D5	(S-5), 3(S-6), 4(S-7), 2(L-2) Main Frame Unit Connector FP301, FP701, FP7, FP9, B1, B1101
⑤	Lens Unit	D6	3(L-3)
⑥	Side Case L Unit	D7	2(S-8), (S-9), (S-10), Top Operation Flexible Cable, Zoom Switch Flexible Cable, Hole of CCD Barrier, Battery Eject Knob
⑦	Top Case Unit	D8	(S-11), Light FPC, CCD Barrier, Groove of Battery Case Unit, Guide of Top Case Unit, Connector FP1101
⑧	Battery Case Unit	D8	-----

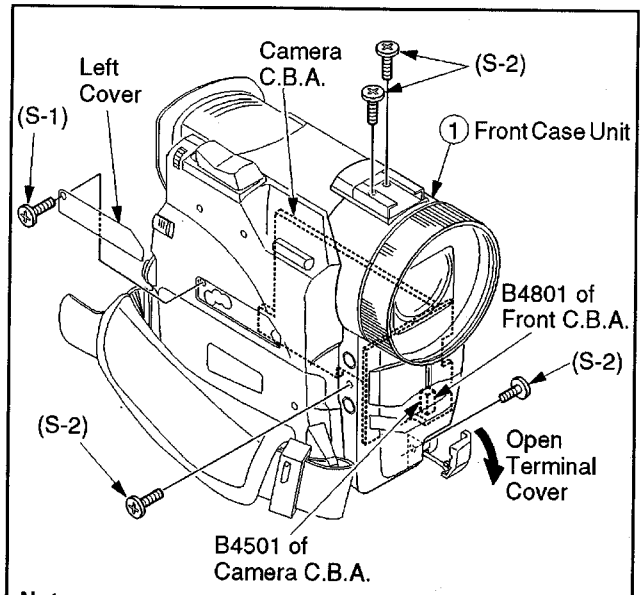
A B C D

How to read chart shown above:

A: Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts in Figures.
B: Part to be removed or installed.
C: Fig. No. showing Procedure or Part Location.
D: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
4(S-2)=4 Screws (S-2), 2(L-1)=2 Locking Tabs (L-1)

Note :

a. When removing the cabinet, work with care so as not to break the Locking Portions.
b. Place a cloth or some other soft material under the P.C. Boards or Unit to prevent damage.
c. When reinstalling, ensure that the connectors are connected and electrical components have not been damaged.
d. Do not supply power to the Unit during disassembly.
e. Use a wrist strap to provide ESD protection while disassembling or assembling, and while operating the Unit disassembled.



Note:
When installing the Front Case Unit, be sure to connect the connector B4801 of the Front C.B.A. with B4501 of the Camera C.B.A. completely.

Fig. D2

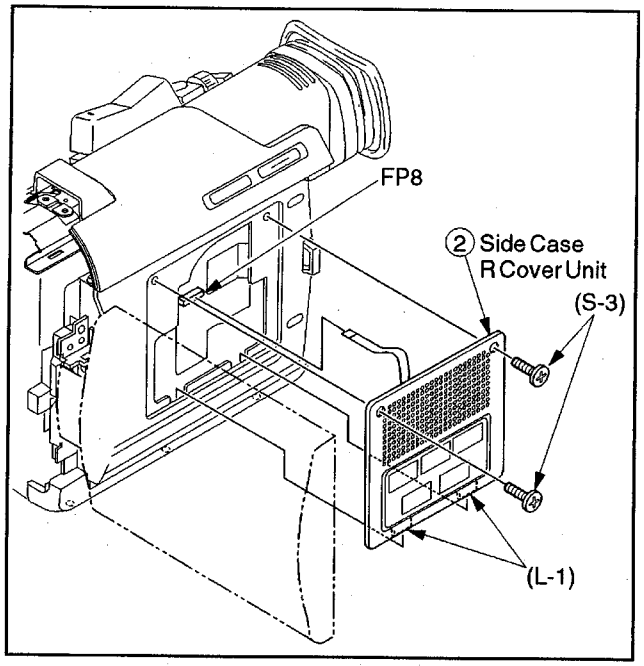
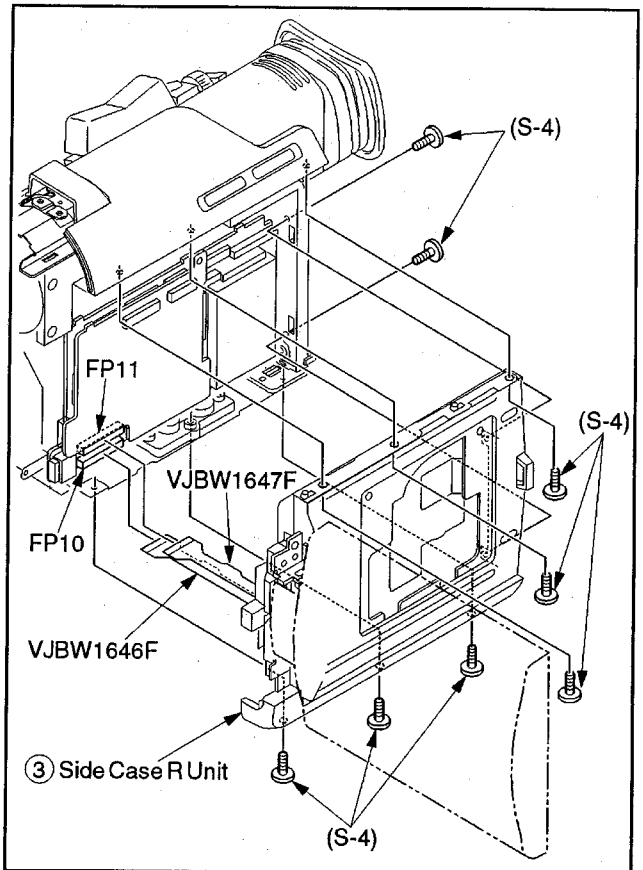


Fig. D3



Note:
When connecting FP10 and FP11, connect the VJBW1646F (long flexible cable) to FP10 and the VJBW1647F (short flexible cable) to FP11. If this connection is done in reverse, the LCD 15V Line and GND will short.

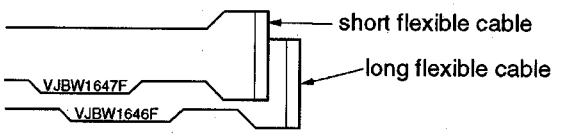
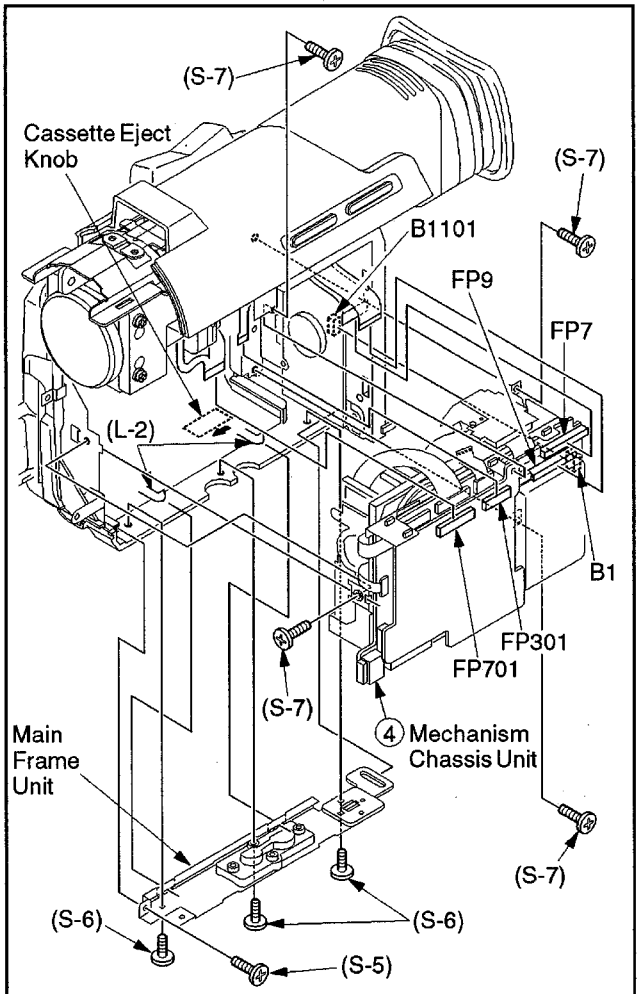


Fig. D4



Note:
(1) When removing the Main Frame Unit, release 2 Locking Tabs (L-2) by sliding the Cassette Eject Knob.
(2) When removing the Mechanism Chassis Unit, disconnect the Connector B1 straightly from the Connector B1101.

Fig. D5

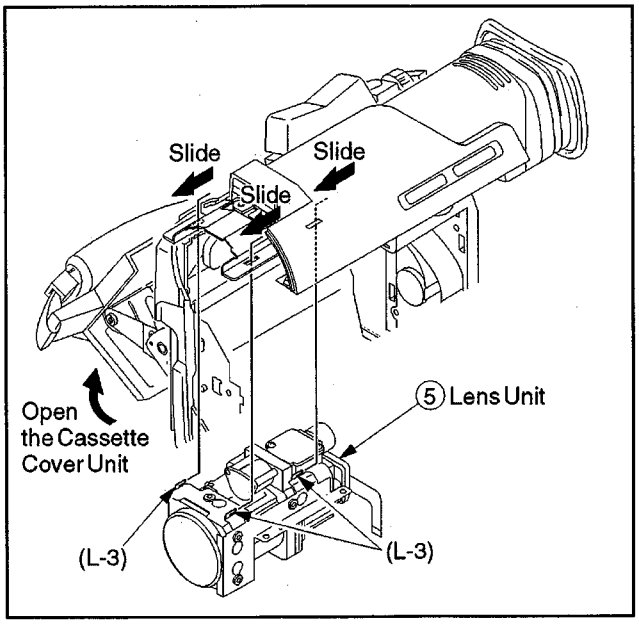
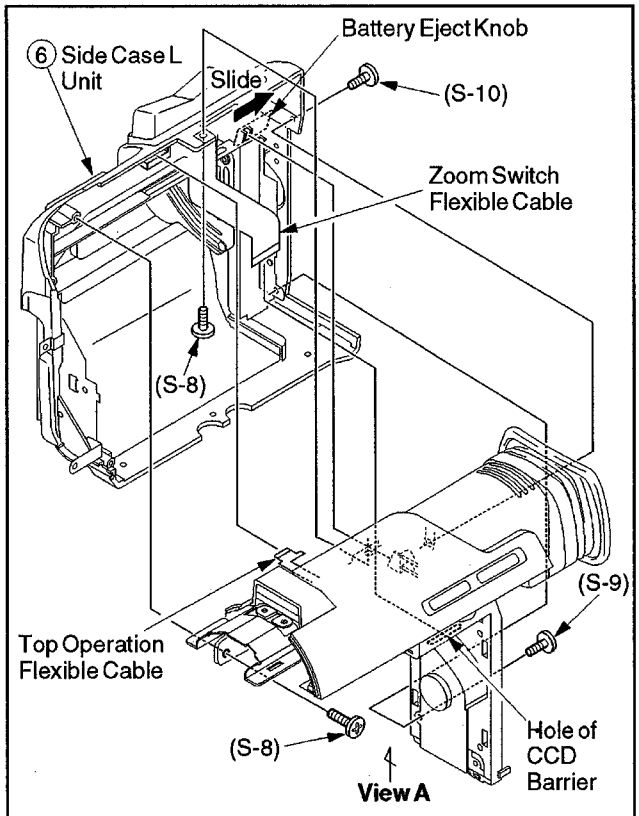
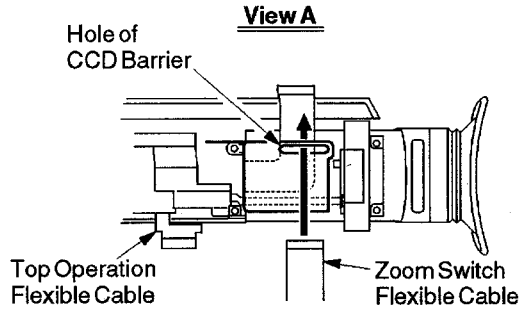


Fig. D6

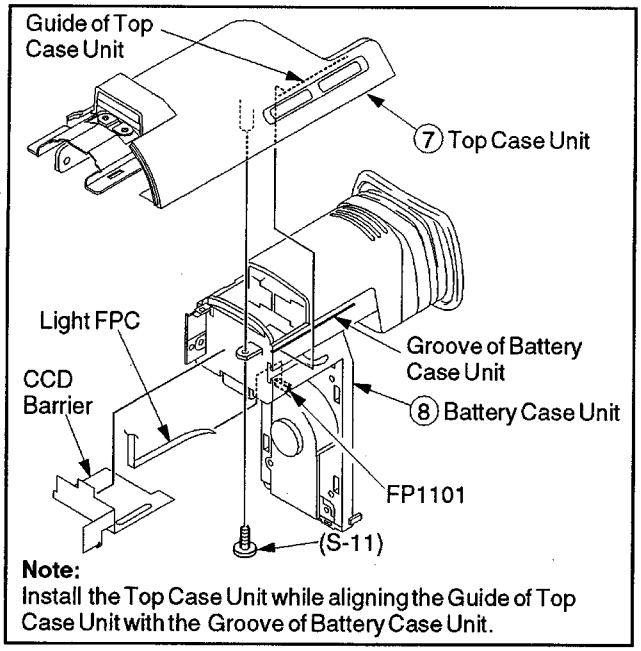


Note:
When installing the Side Case L Unit, install it after sliding the Battery Eject Knob in the direction of the arrow.



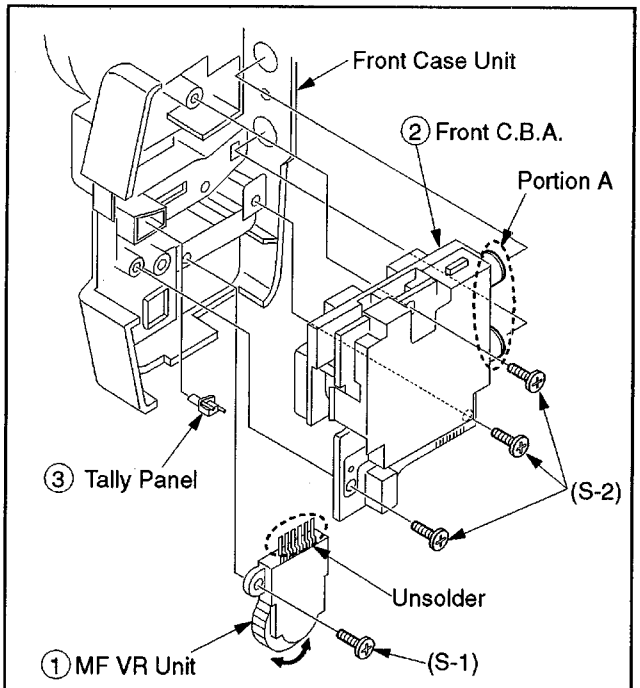
Note:
The Zoom Switch Flexible Cable passes through the Hole of CCD Barrier as shown.

Fig. D7



Note:
Install the Top Case Unit while aligning the Guide of Top Case Unit with the Groove of Battery Case Unit.

Fig. D8

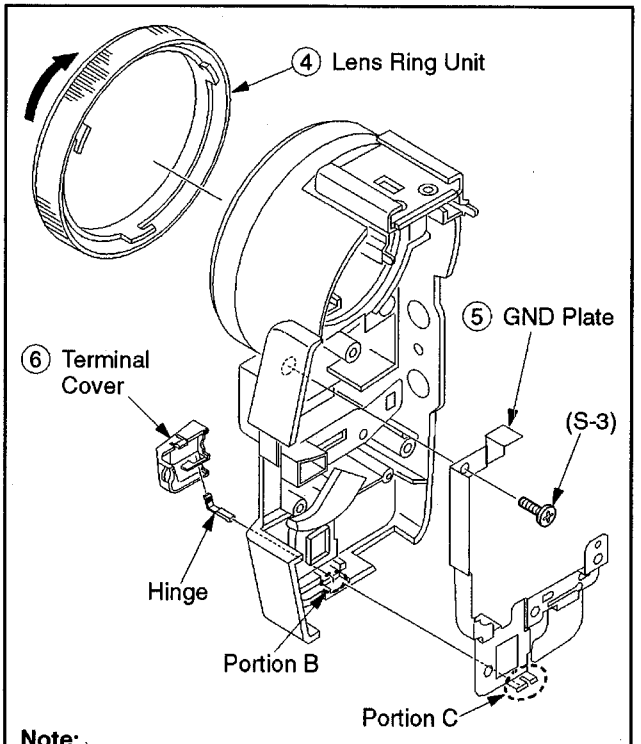


Note:
(1) When installing the Front C.B.A., install Portion A of the Front C.B.A. first.
(2) After installing the MF VR Unit, confirm that the MF VR Unit can rotate smoothly without touching the Front Case Unit.

Fig. D9

FRONT CASE UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	MF VR Unit	D9	(S-1), Unsolder
②	Front C.B.A.	D9	3(S-2)
③	Tally Panel	D9	-----
④	Lens Ring Unit	D10	-----
⑤	GND Plate	D10	(S-3)
⑥	Terminal Cover	D10	Hinge

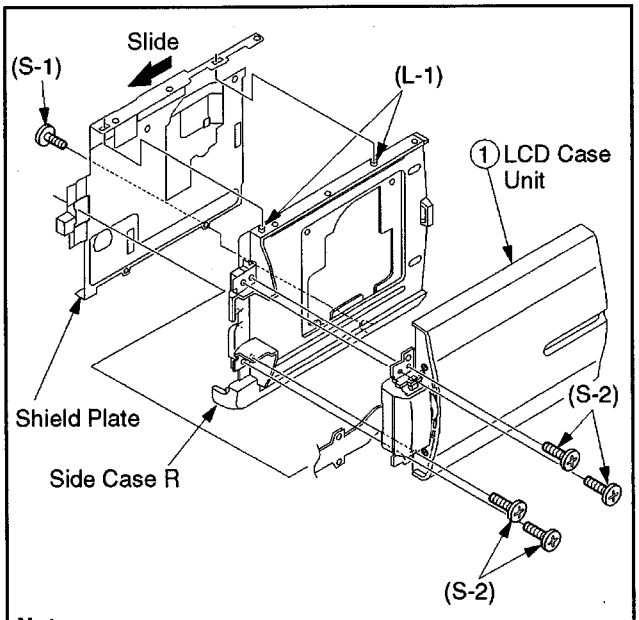


Note:
After installing the GND Plate, confirm that the Hinge is caught by Portion B and is pushed by Portion C of the GND Plate.

Fig. D10

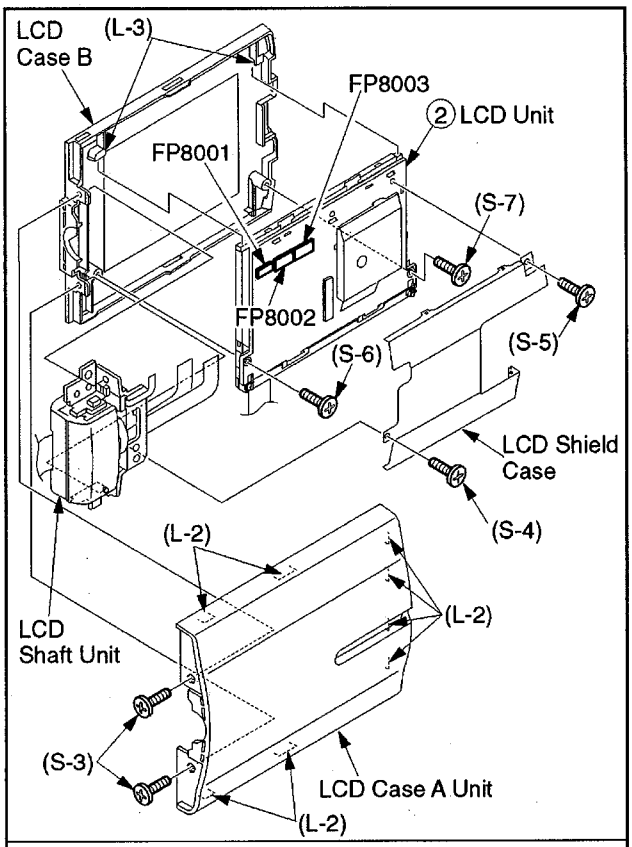
SIDE CASE R UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	LCD Case Unit	D11	(S-1), 4(S-2), 2(L-1), Shield Plate, Side Case R
②	LCD Unit	D12	2(S-3), (S-4), (S-5), (S-6), (S-7), 8(L-2), 2(L-3) LCD Case A Unit, LCD Shield Case, LCD Shaft Unit, LCD Case B, Connector FP8001, FP8002, FP8003
③	LCD C.B.A.	D13-1	Lead Light Panel Unit, Connector FP8004, Unsolder
④	LCD Panel Unit	D13-1	8(L-4)
⑤	LCD Lamp Unit	D13-2	3(L-5), LCD Sheet Unit, LCD Reflect Sheet, Lead Light Panel



Note:
When replacing the Side Case R, confirm that there is not the Spacer on the Camera C.B.A.
If the Spacer is there, replace the Side Case R after removing the Spacer (Refer to Fig. D14).

Fig. D11



Note:
Remove 2 Screws (S-3) after turning the Angles of LCD Shaft Unit and the LCD Case Unit as shown below.
Then, remove the LCD Case A Unit.

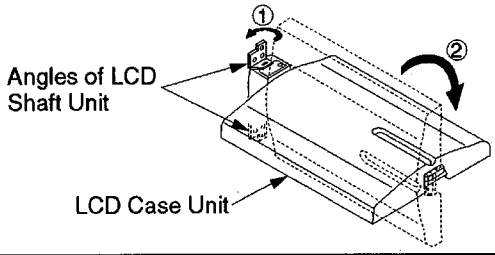
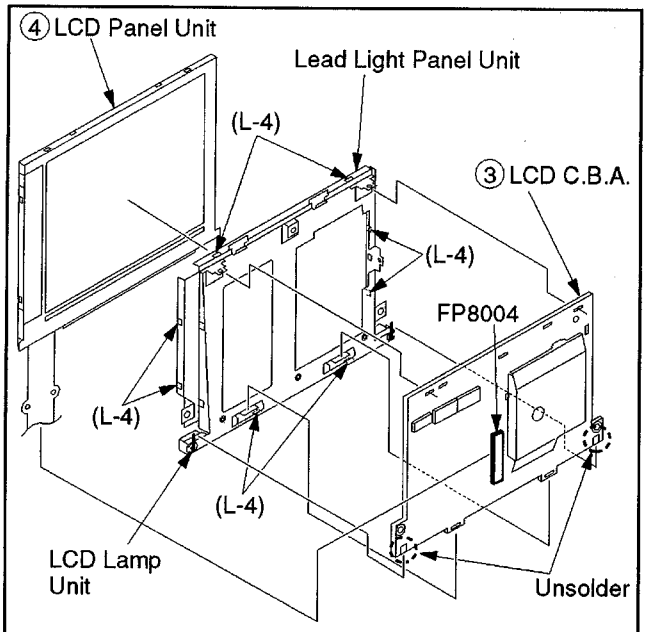


Fig. D12

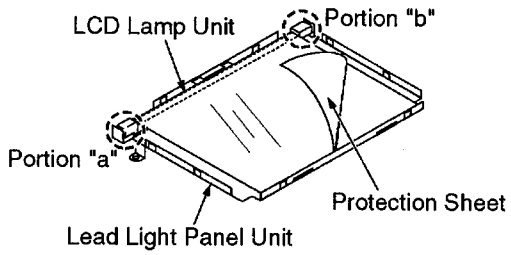


Note:

(1) When replacing the Lead Light Panel Unit, make sure to remove Protection Sheet as shown below.

(2) Use extreme care when handling the Lead Light Panel Unit and the LCD Panel Unit to avoid damage, dust, and spots (especially fingerprints, etc.). The use of clean cotton gloves when available is highly recommended.

(3) Be careful not to apply any pressure to Portion "a" and "b" of the LCD Lamp Unit as shown below.



(4) After replacing the Lead Light Panel Unit, confirm that the Terminal of LCD Lamp Unit is soldered correctly as shown below.

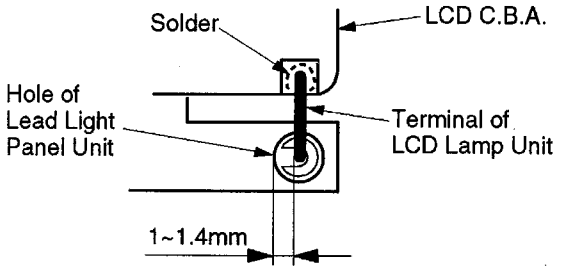
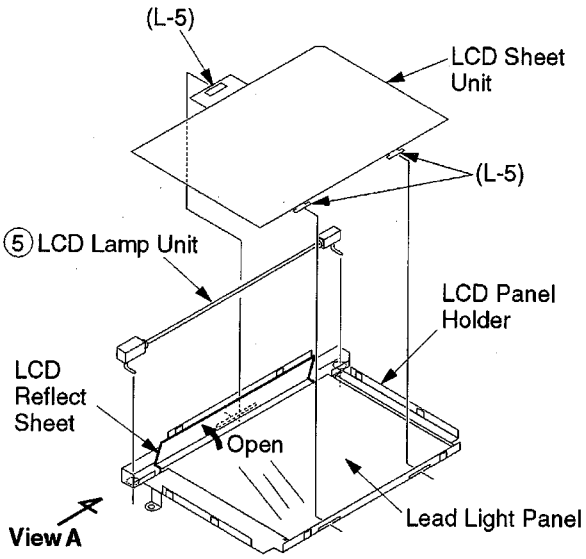


Fig. D13-1



Note:

(1) When installing the LCD Lamp Unit, confirm that the LCD Lamp Unit is positioned as shown below.

(2) Use extreme care when handling the Lead Light Panel and the LCD Sheet Unit to avoid damage, dust, and spots (especially fingerprints, etc.).

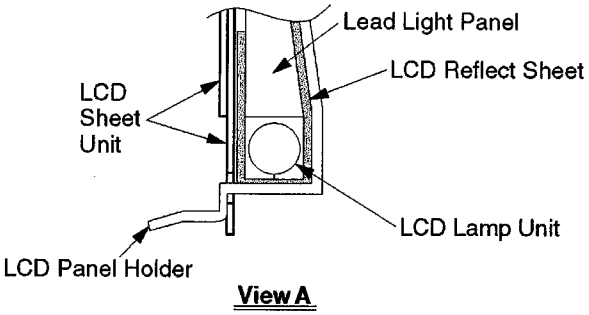
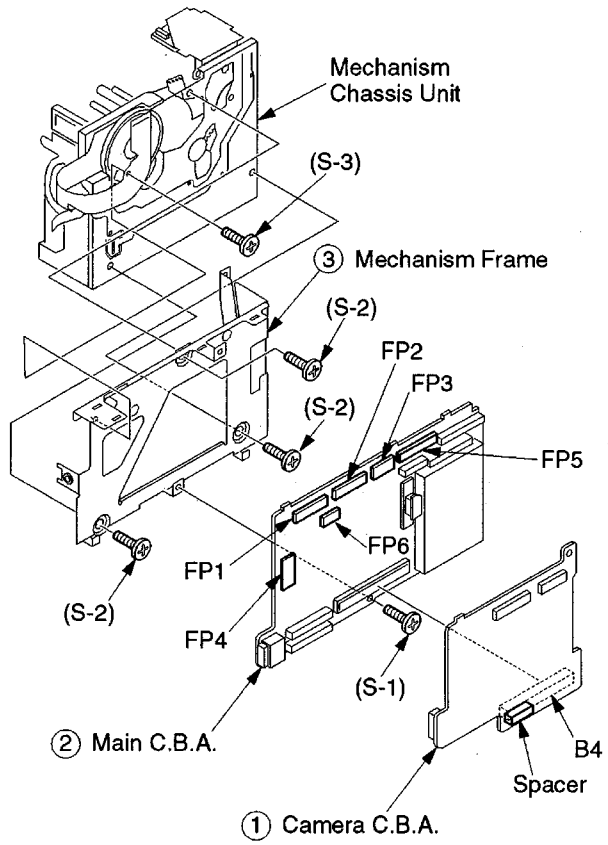


Fig. D13-2

MECHANISM CHASSIS UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Camera C.B.A.	D14	Connector B4
②	Main C.B.A.	D14	(S-1), Connector FP1, FP2, FP3, FP4, FP5, FP6
③	Mechanism Frame	D14	3(S-2), (S-3)

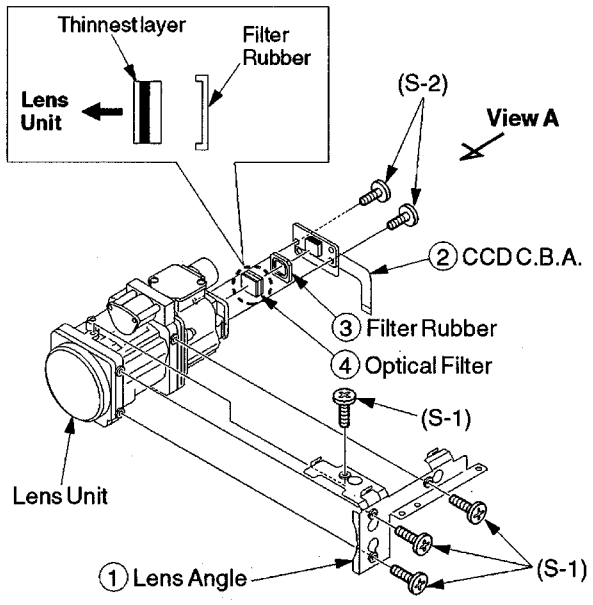


Note:
(1) When installing the Mechanism Chassis Unit, confirm that the Mechanism Chassis Unit is in the Loading Position.
(2) After replacing the Mechanism Chassis Unit, confirm Tape Path Alignment with L.I.S.T.A.
If adjustment is necessary, perform Envelope Adjustment.
(3) The Spacer will be deleted after a projection is added onto the Side Case R on running change basis.

Fig. D14

LENS UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Lens Angle	D15	4(S-1)
②	CCD C.B.A.	D15	2(S-2)
③	Filter Rubber	D15	-----
④	Optical Filter	D15	-----



Note:
a. Before reinstalling, clean the Optical Filter with Lens Cleaning materials.
b. If the Optical Filter is removed from the front of the CCD C.B.A., replace it with the thinnest layer of the filter facing toward the Lens Unit.

Note:
When installing the CCD C.B.A., tighten 2 Screws (S-2) while keeping the CCD C.B.A. pressed in the direction of the arrow as shown.

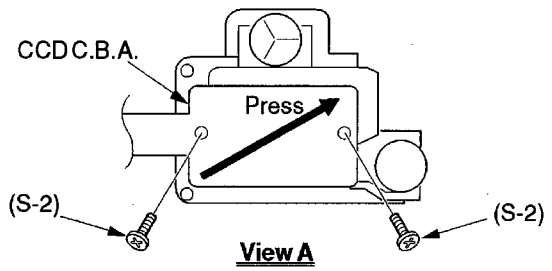
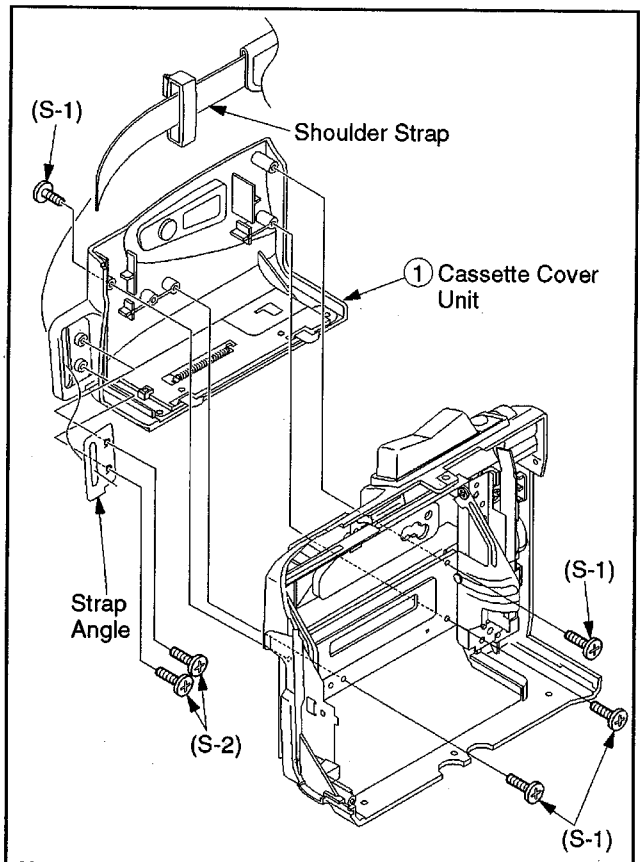


Fig. D15

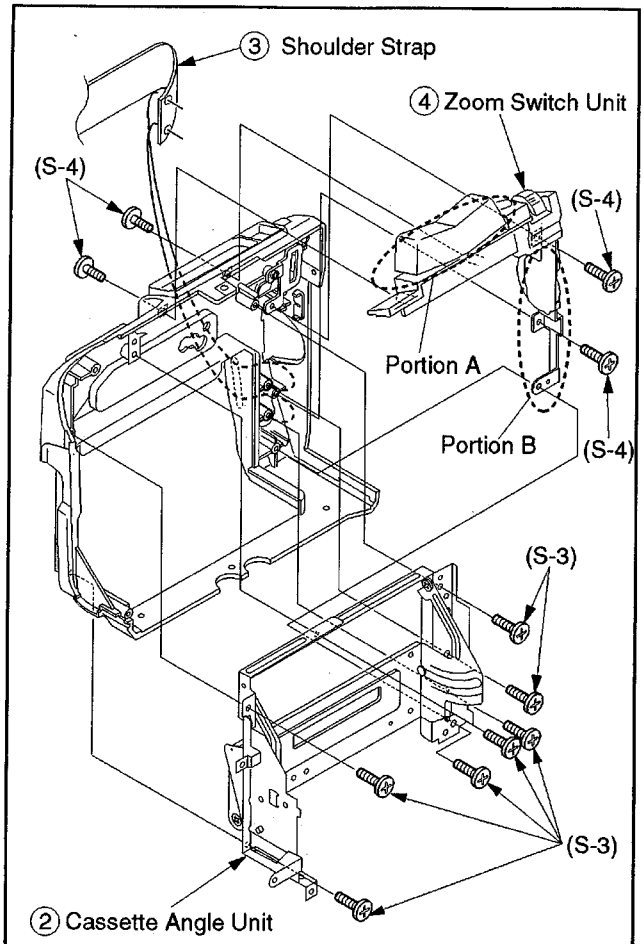
SIDE CASE L UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Cassette Cover Unit	D16	4(S-1)
②	Cassette Angle Unit	D17	7(S-3)
③	Shoulder Strap	D16 D17	2(S-2), Strap Angle
④	Zoom Switch Unit	D17	4(S-4)



Note:
To remove the Shoulder Strap, remove the Cassette Angle Unit first as shown in Fig. D17. Then, remove the Shoulder Strap.

Fig. D16



Note:
When installing the Zoom Switch Unit, install Portion B after installing Portion A.

Fig. D17

TOP CASE UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Top Operation Unit	D18	3(S-1), Top Case, Light Shoe Case, Top Operation Knob,

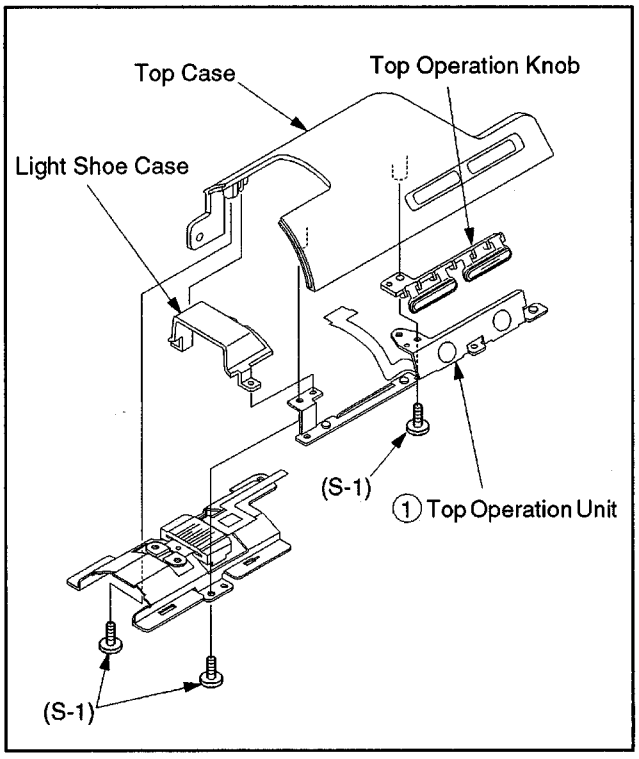


Fig. D18

BATTERY CASE UNIT PORTION

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Rear C.B.A.	D19	2(L-1)
②	EVF Unit	D19	(S-1), (S-2), (L-2), EVF ESD Angle, Battery Eject Piece, Battery Eject Spring
③	EVF Base Angle Unit	D20	2(S-3), 2(S-4), (L-3), EVF Case B
④	EVF Lens	D21	2(L-4), 2(L-5), 2(L-6), Eye Cap, Eye Cap Holder, Lens Holder, Eye Sight Knob
⑤	EVF Drive C.B.A.	D22 D23	2(S-5), (S-6), EVF Case A, EVF Fixing Angle A, Spacer, Connector FP902, B901
⑥	EVF LCD Panel Unit	D23	4(L-7), 2(L-8), EVF Protect A, EVF Protect B, EVF Rubber, EVF LCD Holder, Polarizer
⑦	EVF Backlight C.B.A.	D23	-----

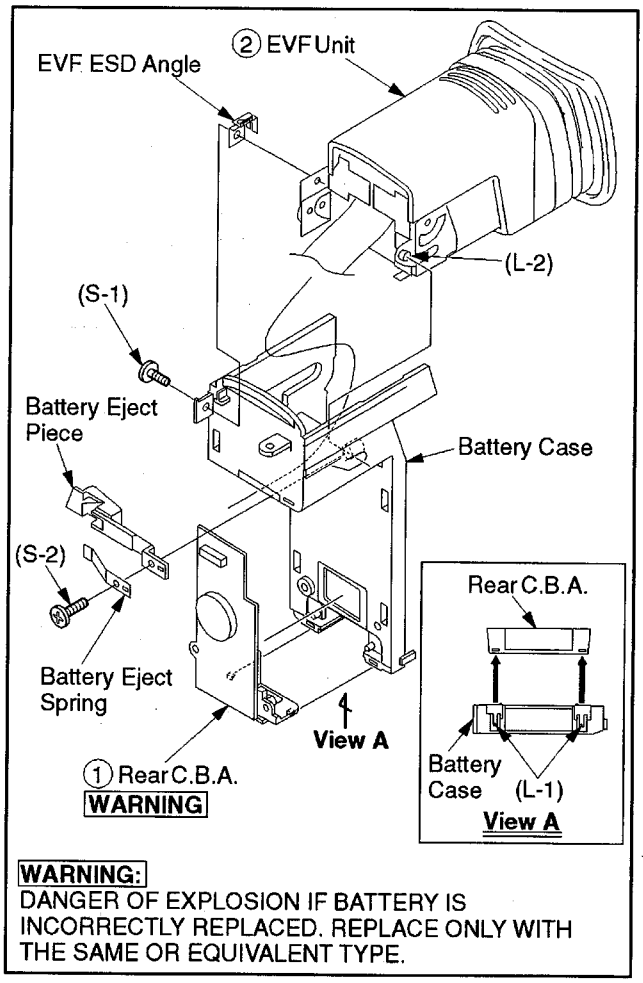


Fig. D19

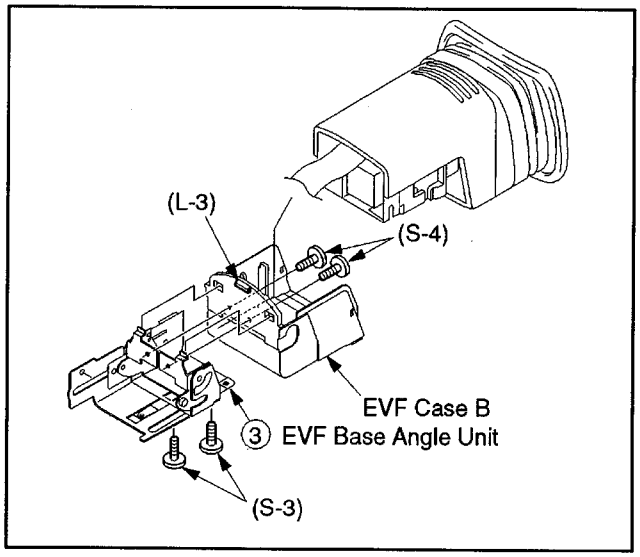
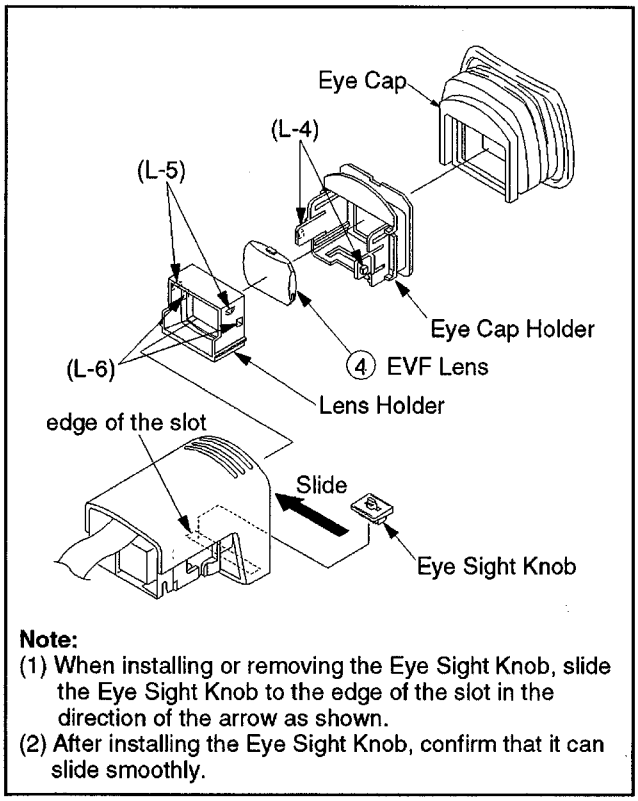


Fig. D20



Note:
(1) When installing or removing the Eye Sight Knob, slide the Eye Sight Knob to the edge of the slot in the direction of the arrow as shown.
(2) After installing the Eye Sight Knob, confirm that it can slide smoothly.

Fig. D21

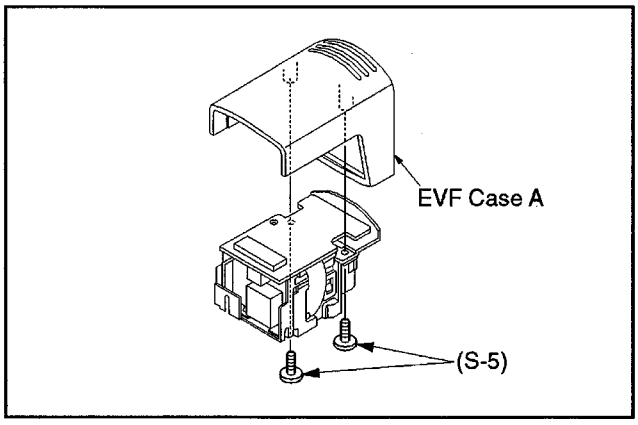


Fig. D22

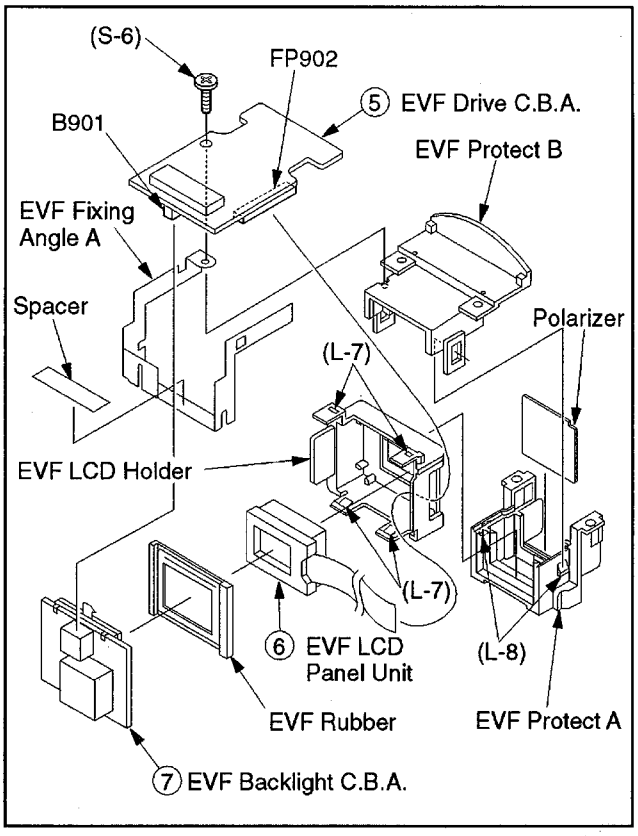


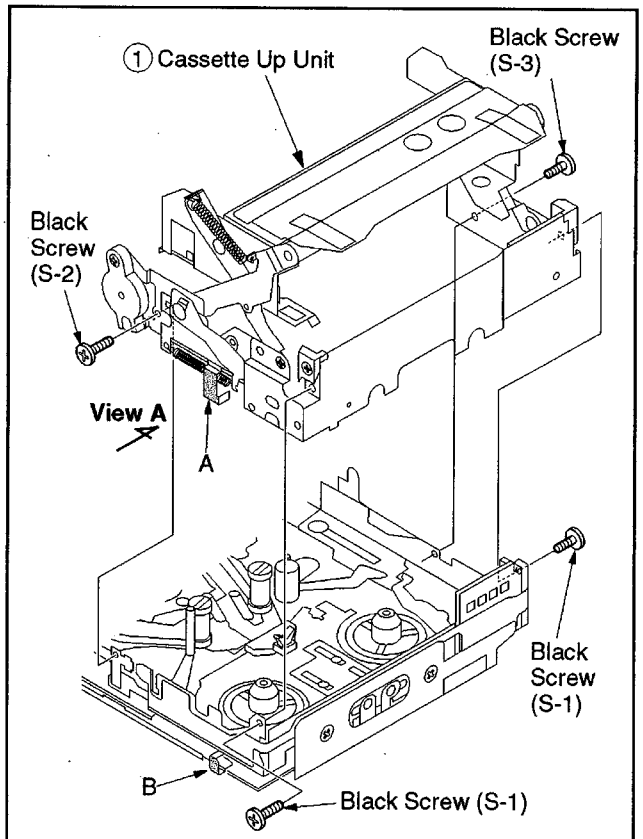
Fig. D23

DISASSEMBLY/ASSEMBLY PROCEDURES OF MECHANISM

This procedure starts with the condition that the cabinet parts, Main C.B.A. have been removed.
When reassembling, perform the step(s) in the reverse order.

DISASSEMBLY METHOD

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Cassette Up Unit	DM1-1 DM1-2	2(S-1), (S-2), (S-3)
②	Head Amp C.B.A.	DM2	(S-4), (S-5), Shield Case, Connector FP5001
③	Cylinder	DM2	3(S-6), Cylinder Spring



Note:
(1) Before removing the Cassette Up Unit, apply DC Voltage of 2.0V DC to the Loading Motor to be the Mechanism Chassis Unit in the Eject Position. (refer to page 1-4)
(2) After installing the Mechanism Chassis Unit, confirm that the Mechanism Chassis Unit is in the Loading Position or in the Eject Position by applying DC Voltage of 2.0V DC to the Loading Motor.

Fig. DM1-1

Note:
When installing the Cassette Up Unit, confirm the correct position of A and B as shown.

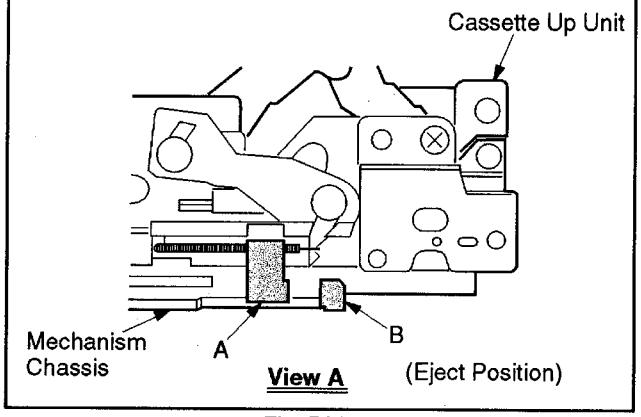
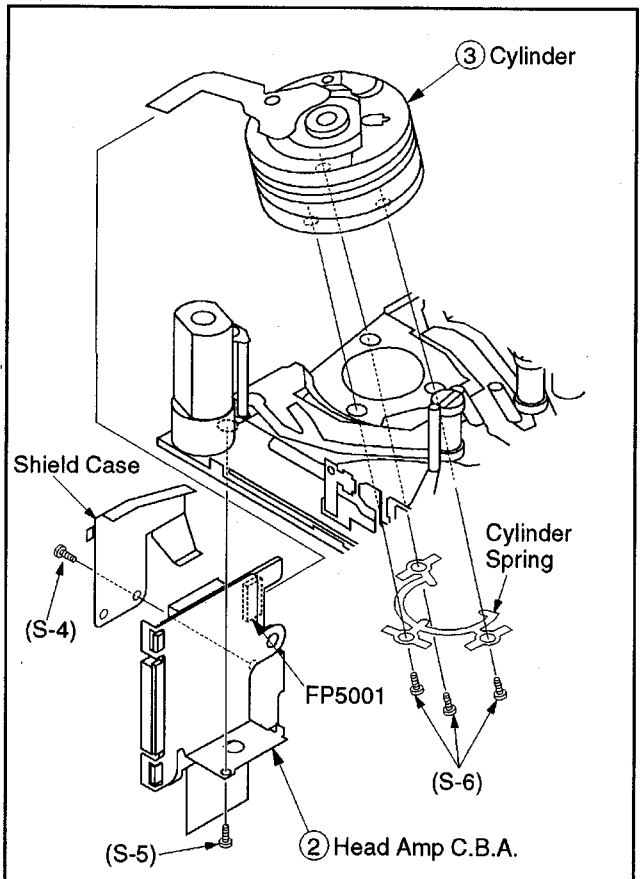


Fig. DM1-2



Note:
After replacing the Cylinder Unit, confirm Tape Path Alignment with L.I.S.T.A.
If adjustment is necessary, perform Envelope Adjustment.

Fig. DM2

ADJUSTMENT PROCEDURES

ELECTRICAL ADJUSTMENT

EEPROM DATA

There are two EEPROM in this unit.
EEPROM

C.B.A.s	EEPROM IC Ref. No.
Camera C.B.A.	IC303
Main C.B.A.	IC2005

1. How to save the EEPROM data

Be sure to save both EEPROM data before service and adjustment in order to make sure to avoid an accidental data loss as follows.

1-1. How to save the EEPROM data for Camera Circuit

1) Select "1. Check [Camera]." in Main menu, and then press "Enter" key.
2) Select "3. Read [Save]/Write All EEPROM datas" in Camera check menu, and then press "Enter" key.
3) Select "5. Save all data of EEPROM" in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key.
4) Input the File name and, then press the "Enter" key. The data of EEPROM (IC303) will be stored to the PC.

1-2. How to save the EEPROM data for Video Circuit

1) Select "2. Check [Video]." in Main menu, and then press "Enter" key.
2) Select "3. Read [Save]/Write All EEPROM datas" in Video check menu, and then press "Enter" key.
3) Select "2. Save all EEPROM data" in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key.
4) Input the File name, and then press "Enter" key. The data of EEPROM (IC2005) will be stored to the PC.

2. How to rewrite the saved data to EEPROM

When it becomes impossible to adjust during service and adjustment, rewrite the saved data which stored in 1-1, 1-2 to EEPROM as follows. And readjust.

2-1. How to rewrite the saved data of Camera circuit

1) Select "1. Check [Camera]." in Main menu, and then press "Enter" key.
2) Select "3. Read [Save]/Write All EEPROM datas" in Camera check menu, and then press "Enter" key.
3) Select "6. Data write using stored file" in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key.
4) Input the saved file name, and then press "Enter" key.
5) The data will be written in EEPROM (IC303).

2-2. How to rewrite the saved data of Video circuit

1) Select "2. Check [Video]." in Main menu, and then press "Enter" key.
2) Select "3. Read [Save]/Write All EEPROM datas" in Video check menu, and then press "Enter" key.
3) Select "3. Writing from stored data files" in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key.
4) Input the saved file name, and then press "Enter" key.
5) The data will be written in EEPROM (IC2005).

3. When replacing the Main/Camera C.B.A.

In case that the Main/Camera C.B.A. is replaced, be sure to write the data to EEPROM (IC303) on Camera C.B.A. and EEPROM (IC2005) on Main C.B.A. as follows.

1. Select "1. Check [Camera]." in Main menu, and then press "Enter" key.
2. Select "3. Read [Save]/Write All EEPROM datas" in Camera check menu, and then press "Enter" key.
3. Select "6. Data write using stored file" in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key. Input the saved file name, and then press "Enter" key.
   OR;
   Select "7. Data write with average data," and then press "Enter" key. And press "Enter" key once again.
4. Select "2. Check [Video]." in Main menu, and then press "Enter" key.
5. Select "3. Read [Save]/Write All EEPROM datas" in Video check menu, and then press "Enter" key.
6. Select "3. Writing from stored data files." in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key. Input the saved file name, and then press "Enter" key.
   OR;
   Select "4. Writing of fixed/average values," and then press "Enter" key. And press "Enter" key once again.
   Then, input ID Number as follows.

4. How to input ID Number

The ID number is in the EEPROM.
There are two ways to write the data of EEPROM (IC2005) after replacing Main C.B.A. as follows:

- Selecting "3. Writing from stored data files," ID Number with stored data file will be written automatically.
- Selecting "4. Writing of fixed/average values," ID Number needs to be input. There are two methods, "a" or "b," to input ID Number as follows.

a When writing ID Number from the saved data which is stored in 1-2:

1. Select "2. Check [Video]." in Main menu, and then press "Enter" key.
2. Select "3. Read [Save]/Write All EEPROM datas" in Video check menu, and then press "Enter" key.
3. Select "5. Writing ID from stored file." in Read [Save]/Write All EEPROM datas menu, and then press "Enter" key. Input the saved file name, and then press "Enter" key.
   ID Number will be written automatically.

b When the original ID information can not be read because of destruction of EEPROM etc:

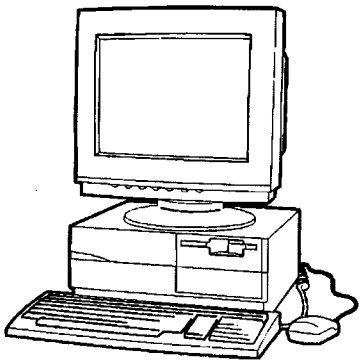
1. Select "4. Adjust [Video]." in Main menu, and then press "Enter" key.
2. Select "9. Write products ID" in Video adjustment menu, and then press "Enter" key.
   ID Number will be written automatically.

Note:
The adjusted data has been written to EEPROM after each adjustments.

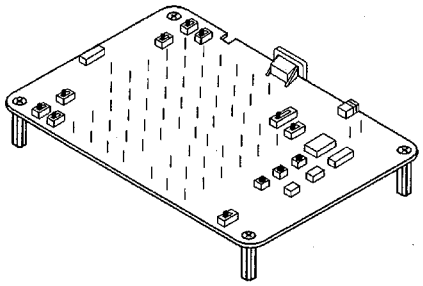
TEST EQUIPMENT

To do all of these electrical adjustments, the following equipments are required.

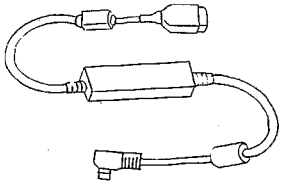
1. Panasonic Personal Computer



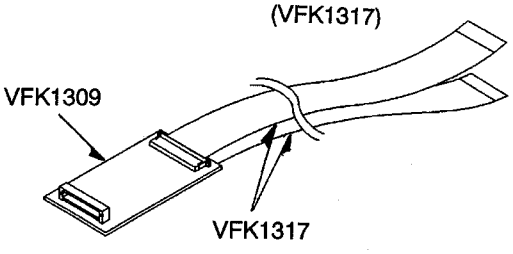
2. Interface Board (VFK1308E)



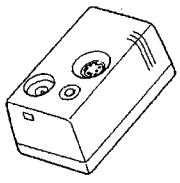
3. Inter Link Cable (VFK1395)



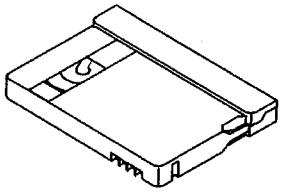
4. Camera Connecting Cable (VFK1309)
(VFK1317)



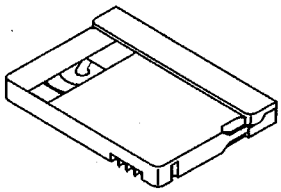
5. Jack Box (VSQW0042)



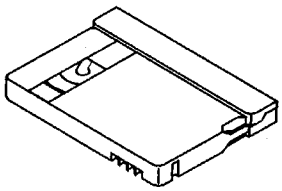
6. 49% Transmission Tape (VFK1217)



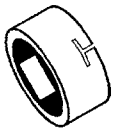
7. Color Bar Standard Tape (VFM3010EHS)
(Keeping condition: Keep at 18°C ~ 28°C)



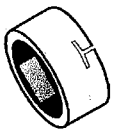
8. Reel FG Adjustment Cassette
(Refer to "How to make the Reel FG Adjustment Cassette" on page 3-3.)



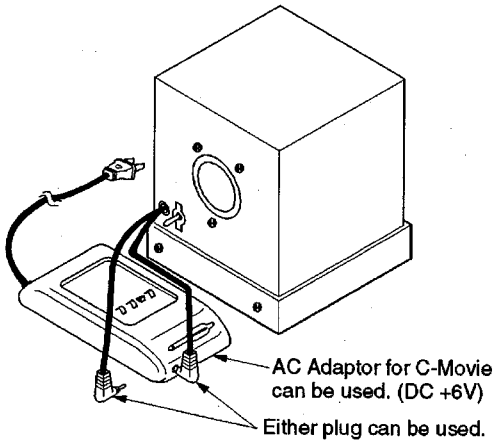
9. White Chart (VFK1164TFWC2)



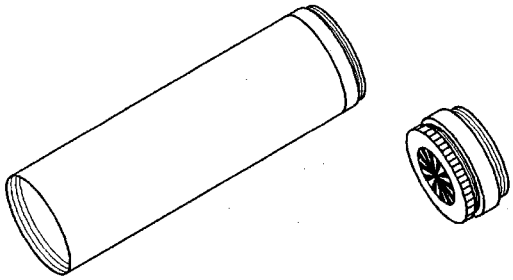
10. Color Bar Chart (VFK1164TFCB2)



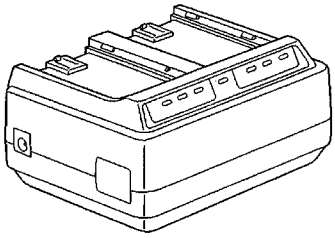
11. Light Box and AC Adaptor



12. Infinity Lens (with Focus Chart) (VFK1164TCM02)



13. AC Adaptor (for DVC)



14. 43mm Attachment Ring (VFK1164TAR43)

15. Color Conversion Filter (C14) (VFK1164TFCT2)

16. Dual-Trace Oscilloscope

Voltage Range	:	0.001 to 50V/Div.
Frequency Range	:	DC to 100MHz
Probes	:	10:1, 1:1

17. DVM(Dihital Volt Meter)

Voltage Range	:	0.01 to 50V

18. Frequency Counter

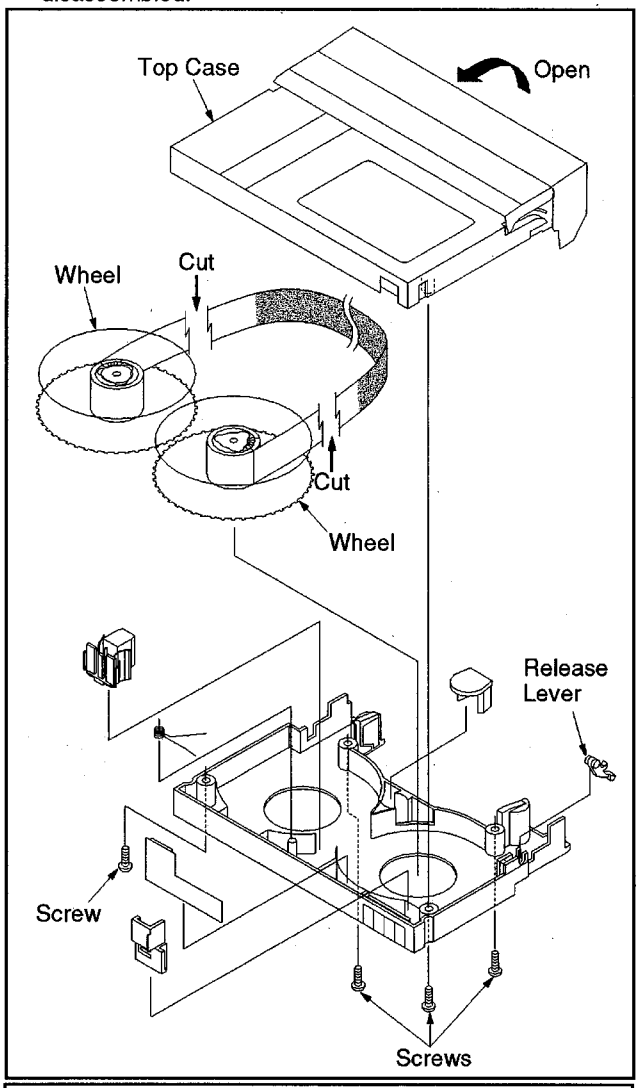
Frequency Range	:	0 to 150MHz

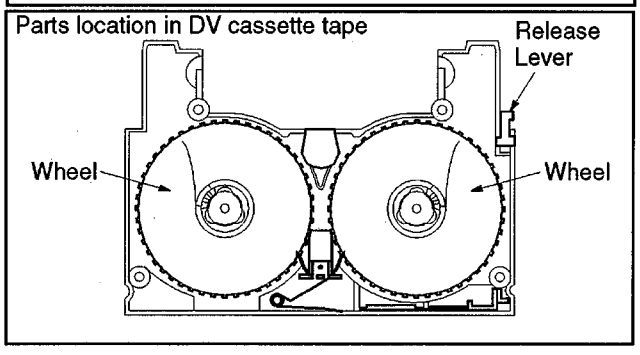
19. Vectorscope

How to make the Reel FG Adjustment Cassette

1) Purchase a DV cassette tape locally.
2) Remove 4 Screws on the DV cassette tape.
3) Remove the Top Case.
4) Take out the Wheels with tape.
5) Undo the whole tape to cut the portions as shown.
6) Reassemble the DV cassette tape.
   Note: Reinstall the Top Case with its door opened.

Reassembly Note:
Be sure to install each part in the original position when parts are out of place as the DV cassette tape disassembled.





PREPARATION

1. Open the LCD panel.

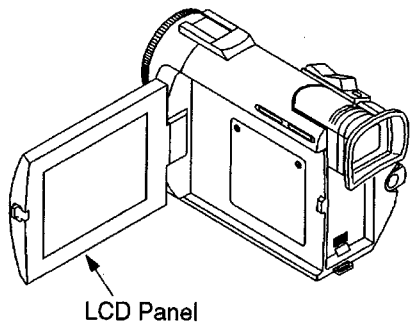


Fig. 1

2. Remove Screws (A) and the Side Case R Cover Unit from the unit. And remove the Short JIG C.B.A.

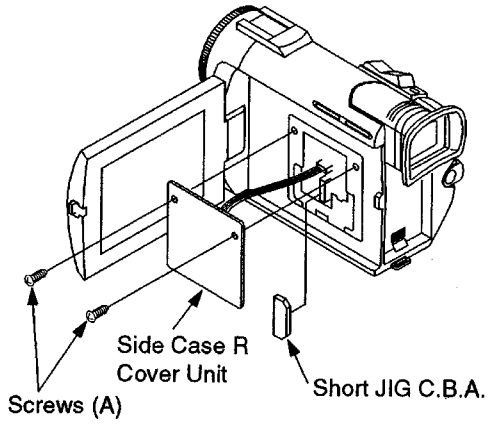


Fig. 2

Caution: **Be sure to attach the Short JIG C.B.A. to protect the microcontroller (IC2001) after adjustment.**

3. Connect the Camera Connecting Cable to P101 and P102 on the Interface Board.

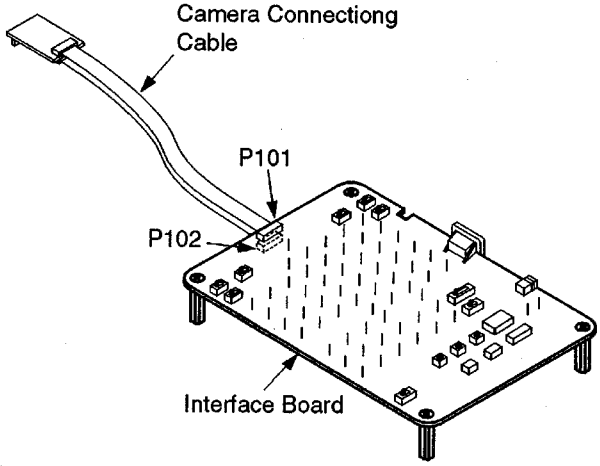


Fig. 3

4. Connect the Camera Connecting Cable to B3 on the unit.

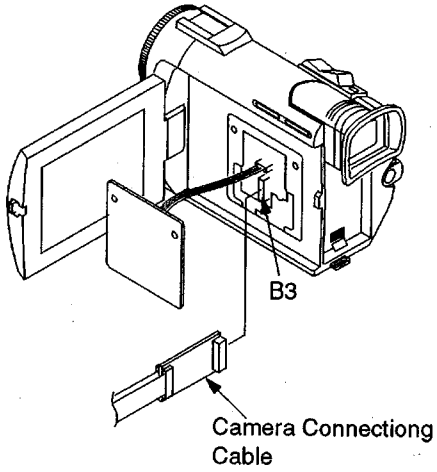


Fig. 4

5. Connect the Jack Box to the unit.

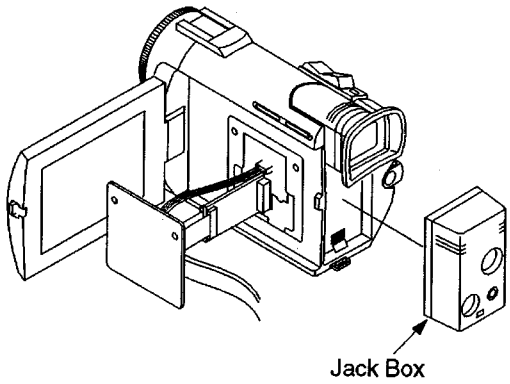


Fig. 5

6. Connect the AC Adaptor to the unit.
7. Connect the P108 on the Interface Board to RS232C of the PC with Inter Link Cable.
8. Set the SW115 (M103 EXMOD1) on the Interface Board to "GND."
9. Set the SW110(RS232C SEL) on the Interface Board to "DSUB."
10. Set the SW114 (M103 VPP) on the Interface Board to "3V."
11. Set the SW103 (RECI) on the Interface Board to "OFF."
12. When adjusting, Set the SW107 (VTR TEST) on the Interface Board to "ON."
    NOTE:
    When ejecting, inserting, recording, or palyback the DV cassette tape, be sure to set the SW107 to "OFF."
13. Set the SW108 (BST TEST) on the Interface Board to "OFF."
14. Set the SW109 (IRIS) on the Interface Board to center.
15. Set the SW111(5V SEL) on the Interface Board to "CAM 5V."
16. Set the SW113 (POWER ON) on the Interface Board to "NORM."
17. Power on the DVC.

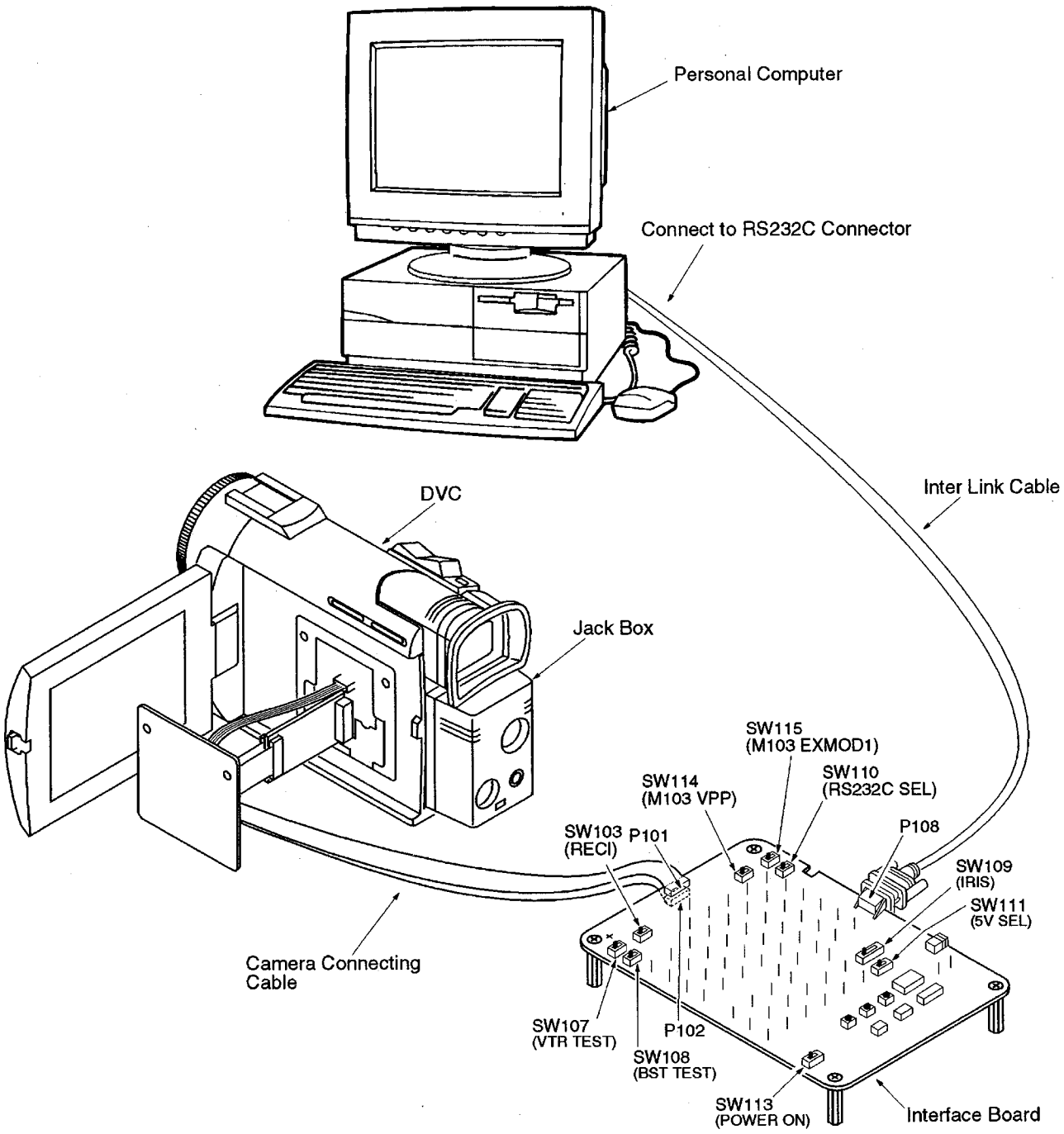

Personal Computer
Connect to RS232C Connector
Inter Link Cable
DVC
Jack Box
SW115
(M103 EXMOD1)
SW114
(M103 VPP)
SW110
(RS232C SEL)
SW103
(RECI)
P101
P108
SW109
(IRIS)
SW111
(5V SEL)
Camera Connecting
Cable
SW107
(VTR TEST)
P102
SW108
(BST TEST)
SW113
(POWER ON)
Interface Board

Fig. 6

SET UP THE MENU MODE

1. Turn on the Personal Computer power SW.
   Windows 95 will be set up automatically.
2. Restart it in MS-DOS mode.
3. Change the current directory to the one including the adjustment program.
   1) Input "cd "as shown in Fig. 7-1. Then, press "ENTER" key.

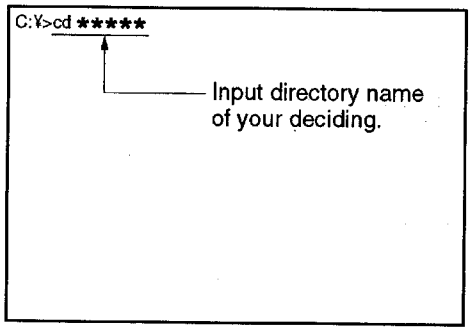


Fig. 7-1

   2) When MS-DOS is Japanese mode, Input "us." Then, press "ENTER" key.

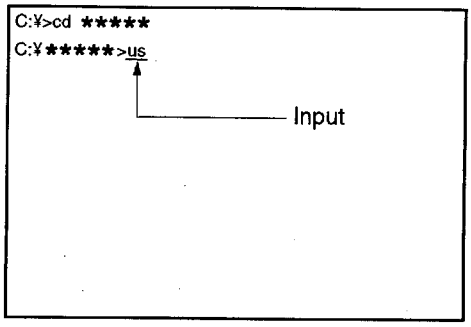


Fig. 7-2

   3) US mode is on. Then, input "ent" and press "ENTER" key.
   The starting display will be displayed.

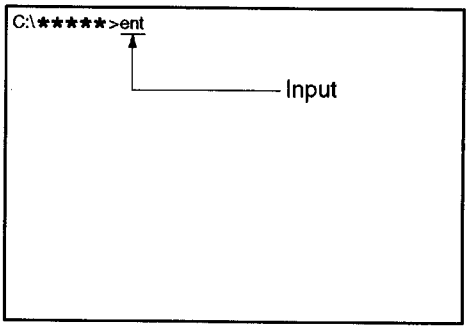


Fig. 7-3

4. Perform some set up items according to menu.
   Main menu will be displayed.

HOW TO USE MAIN MENU

Main Menu

Select a Sub Menu to check, adjust the unit etc. by pressing ↑↓(UP/DOWN) Key in Main Menu. Then, press "ENTER" Key. The Sub Menu will be displayed.

Note:

Menu 4 through 7 are needed for adjustment.

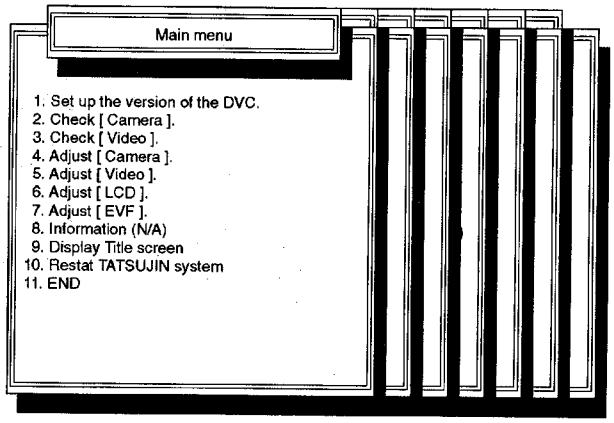


Fig. 8-1

With using ←→ key, you can also see sub menu in order.

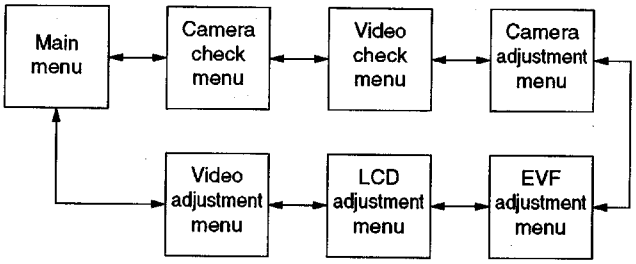


Fig. 8-2

SCHEMATIC DIAGRAMS

SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES

Important safety notice

Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components. Use only the specified parts.

Replacement parts

1. Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

3. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.

Test point information

⊘ :Test point with no test pin.

Schematic Diagram Notes

1. Indication for Zener Voltage of Zener Diodes
   The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

   Example:
   (6.2V).....Zener Voltage

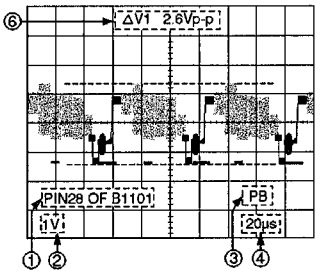
2. Parts enclosed in dashed lines marked "Z" are not used in any models included in this service manual.

   Example: R937 47K, ⚠ D905 Z

3. The part number shown on this drawing is only main part number, except for safety parts. Be sure to make your orders of replacement parts according to the parts list.

Signal Waveform Note

How to read Signal Waveform



WF7←⑤

① Connecting Point
② Volts/Div
③ Operation Mode of VCR
④ Time/Div
⑤ Waveform Point on Schematic
⑥ △V1:Peak to Peak

Voltage Chart Note

Voltage Measurement

a. Color bar signal in SP mode.
b. ---:Unmeasurable or not necessary to measure.

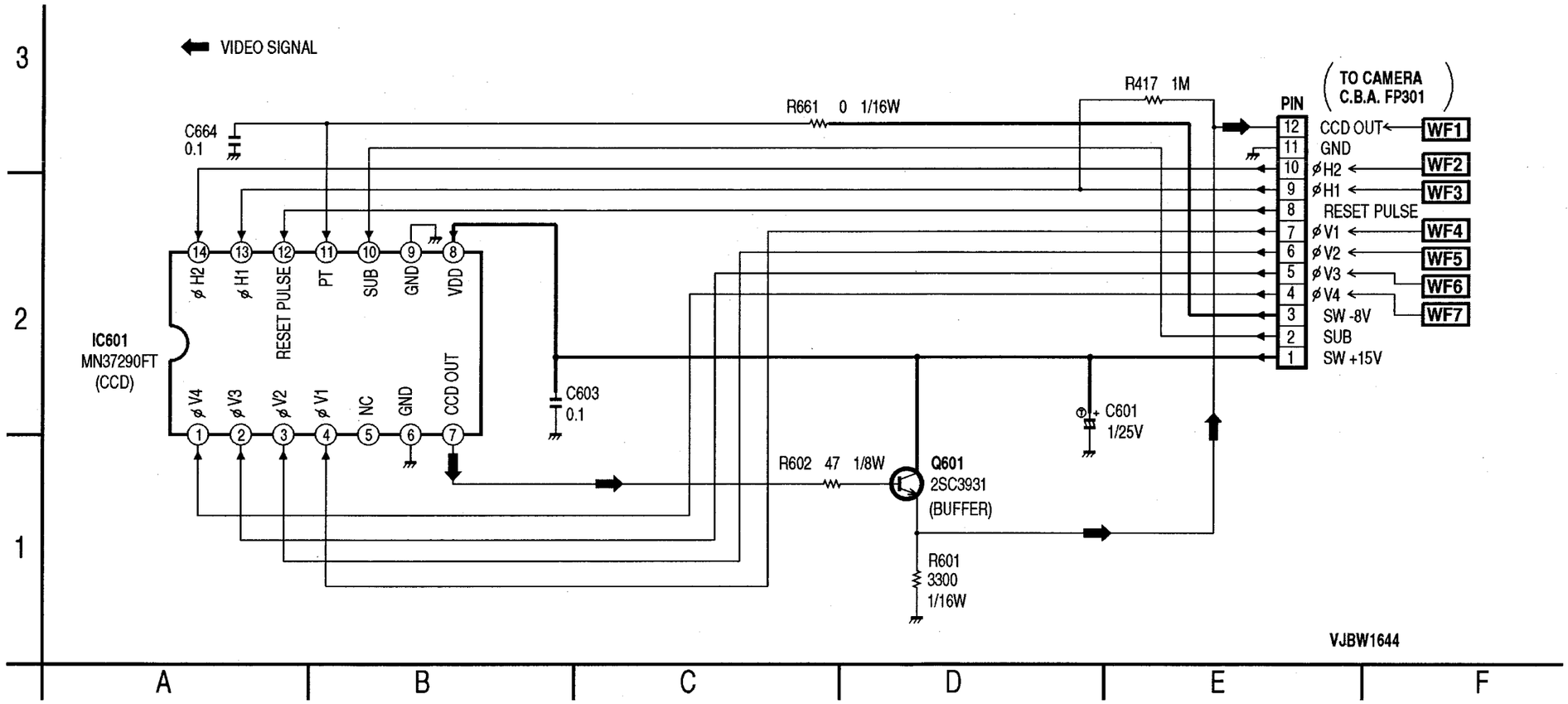
Circuit Board Layout Note

Circuit Board Layout shows components installed for various models.

For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

CCD SCHEMATIC DIAGRAM

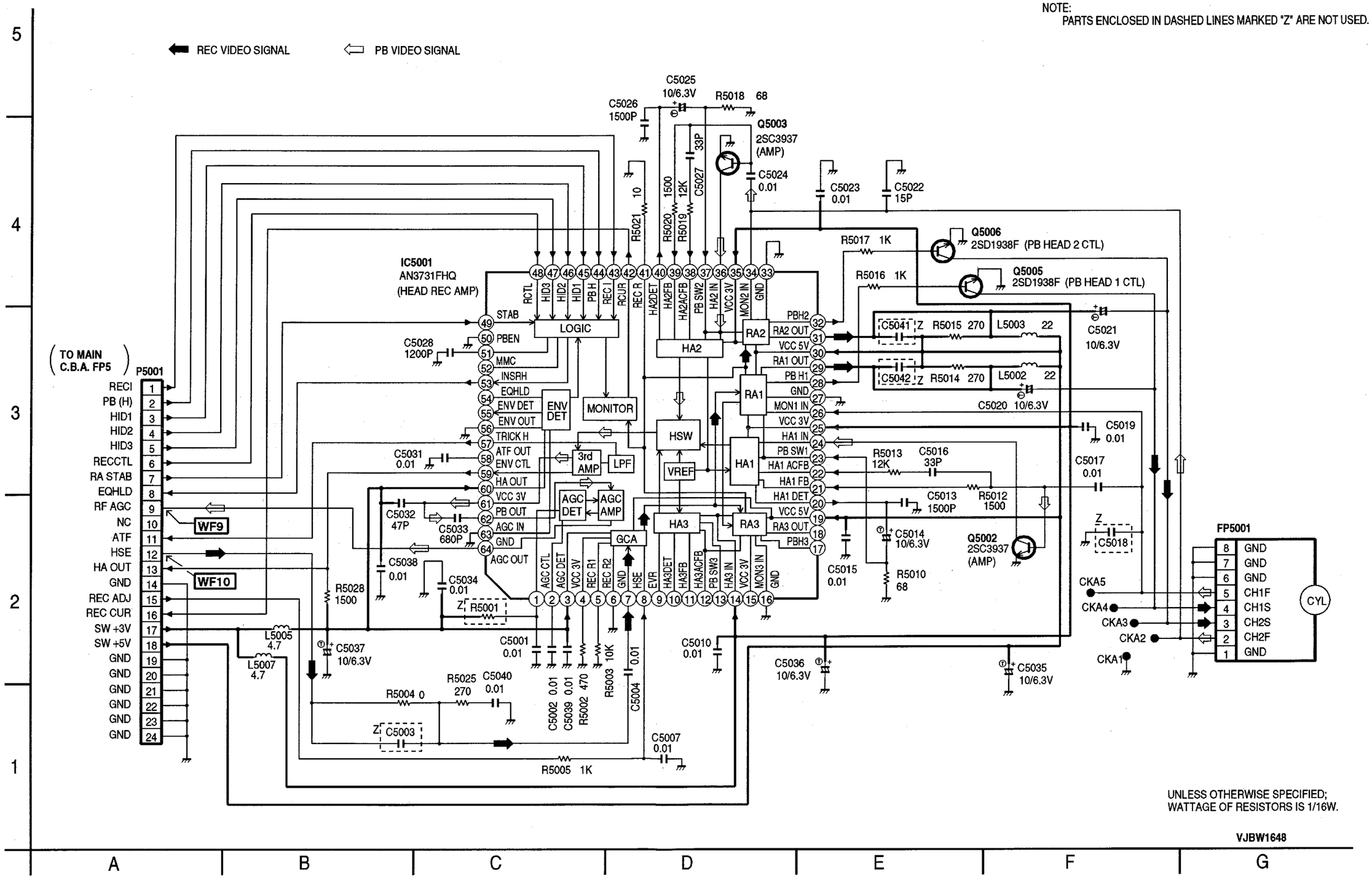
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.



HEAD AMP SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.



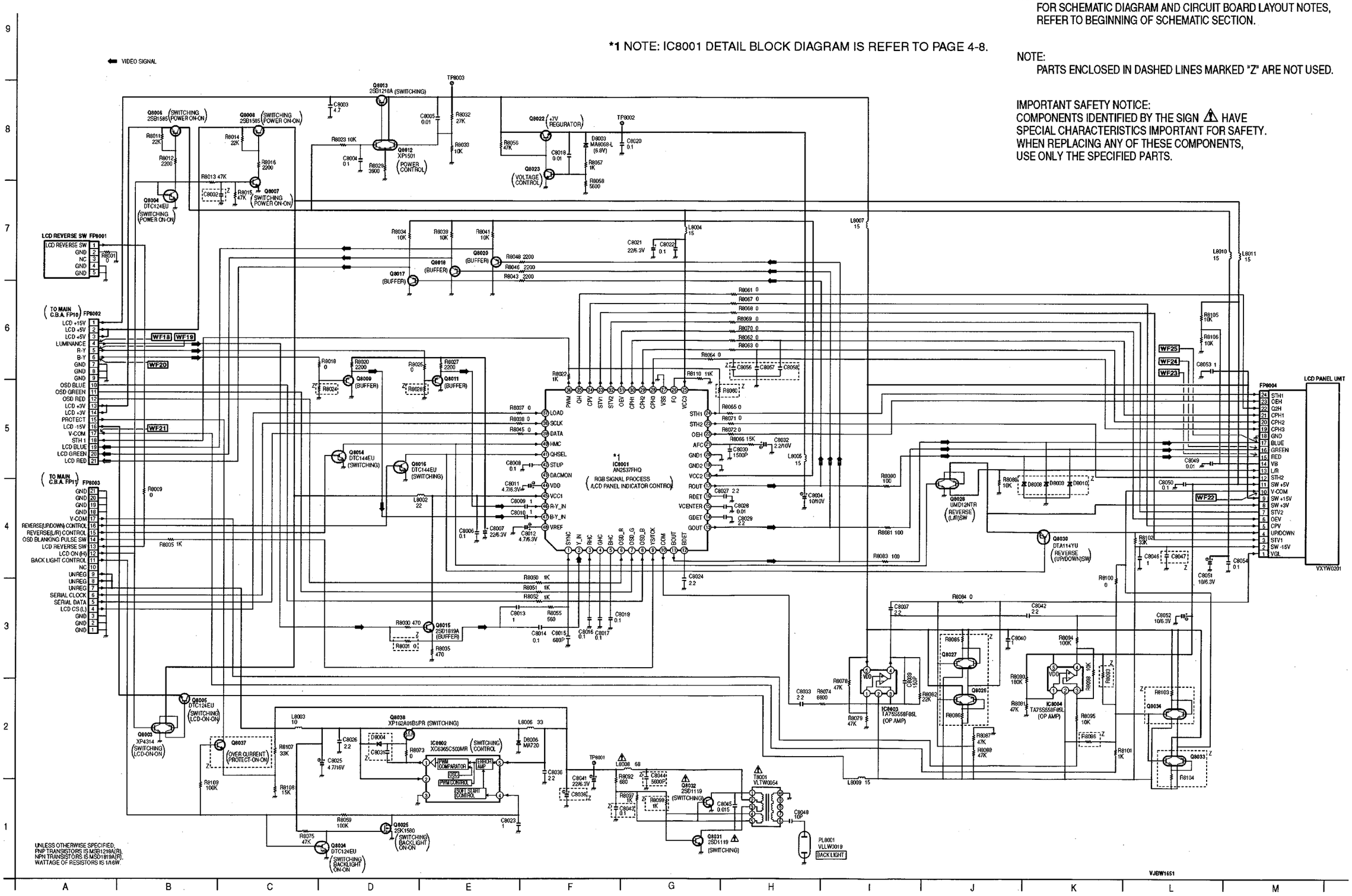
LCD SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

*1 NOTE: IC8001 DETAIL BLOCK DIAGRAM IS REFER TO PAGE 4-8.



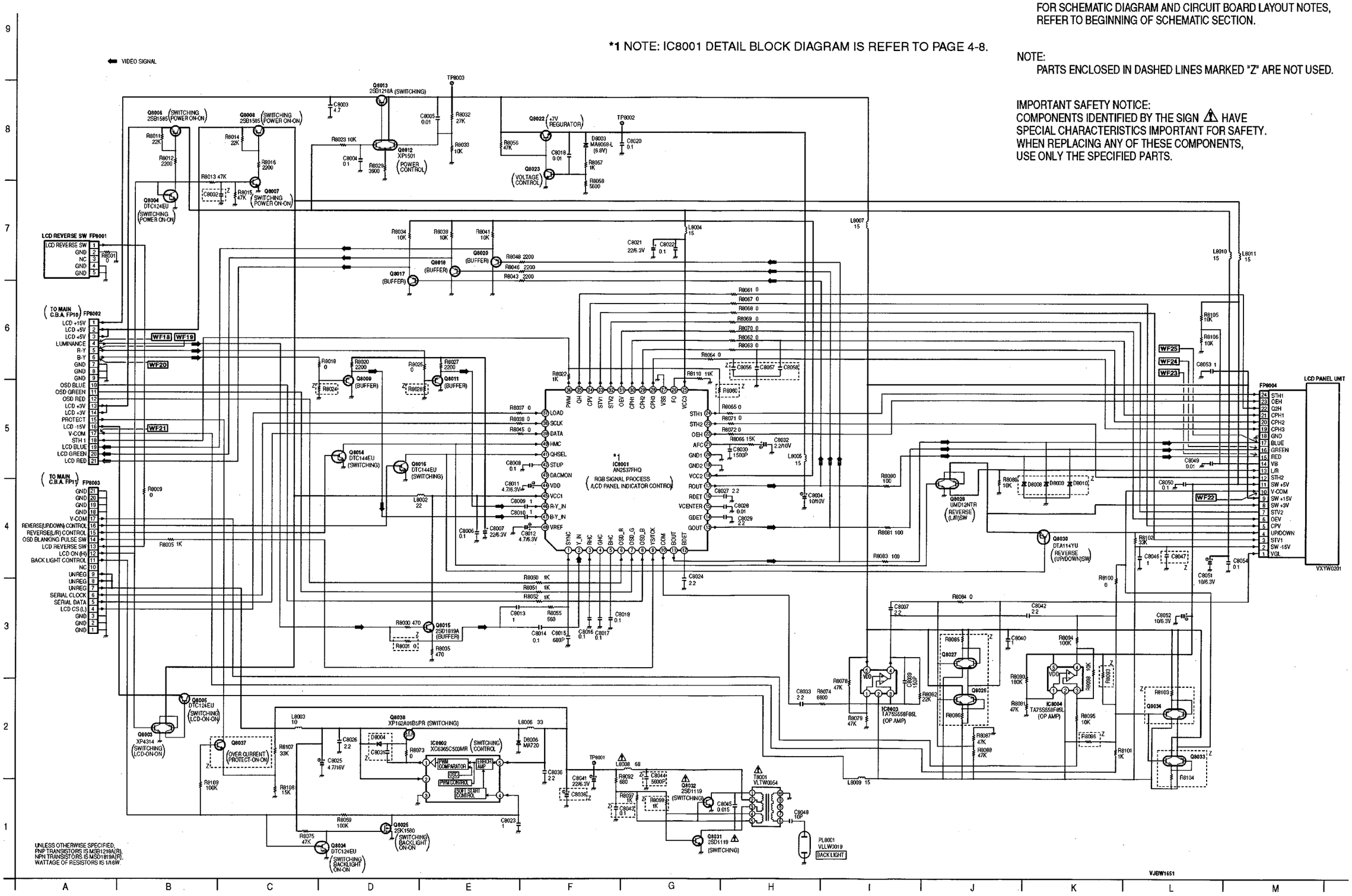
LCD SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

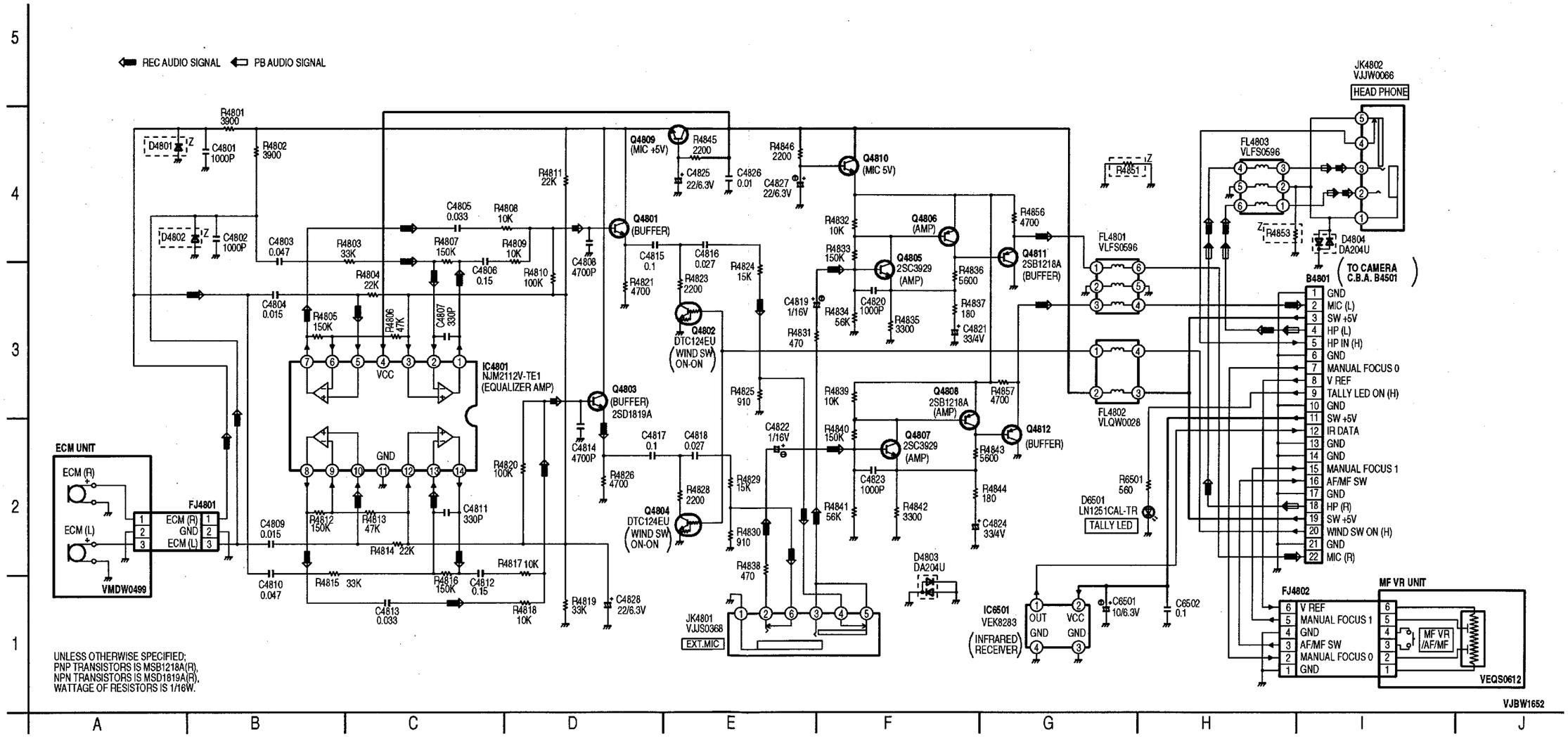
*1 NOTE: IC8001 DETAIL BLOCK DIAGRAM IS REFER TO PAGE 4-8.



FRONT SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.



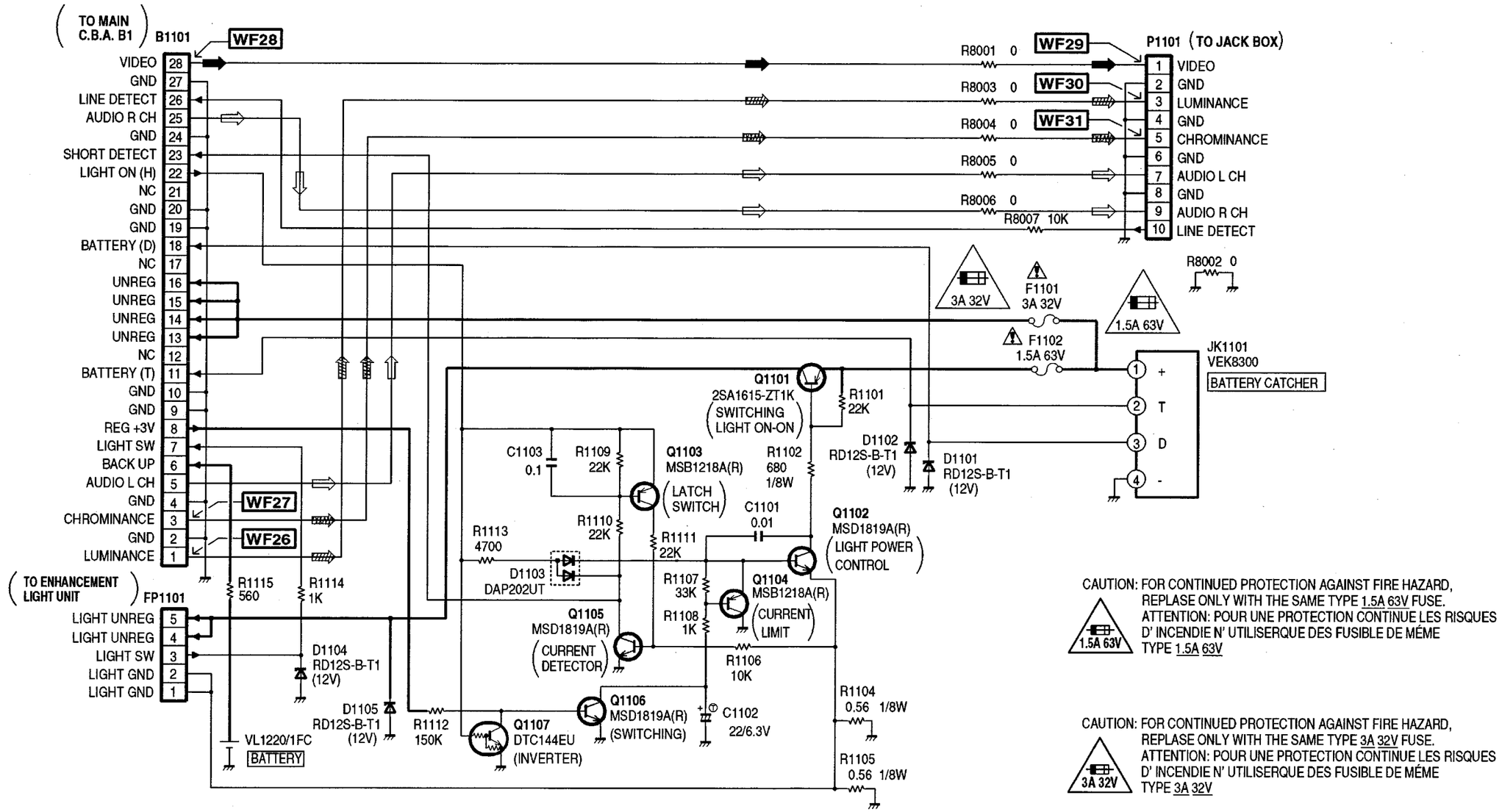
REAR SCHEMATIC DIAGRAM

WARNING: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED.
REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

VIDEO SIGNAL AUDIO SIGNAL LUMINANCE SIGNAL CHROMINANCE SIGNAL



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 1.5A 63V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 1.5A 63V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 3A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 3A 32V

UNLESS OTHERWISE SPECIFIED;
WATTAGE OF RESISTORS IS 1/16W.

VJBW1653

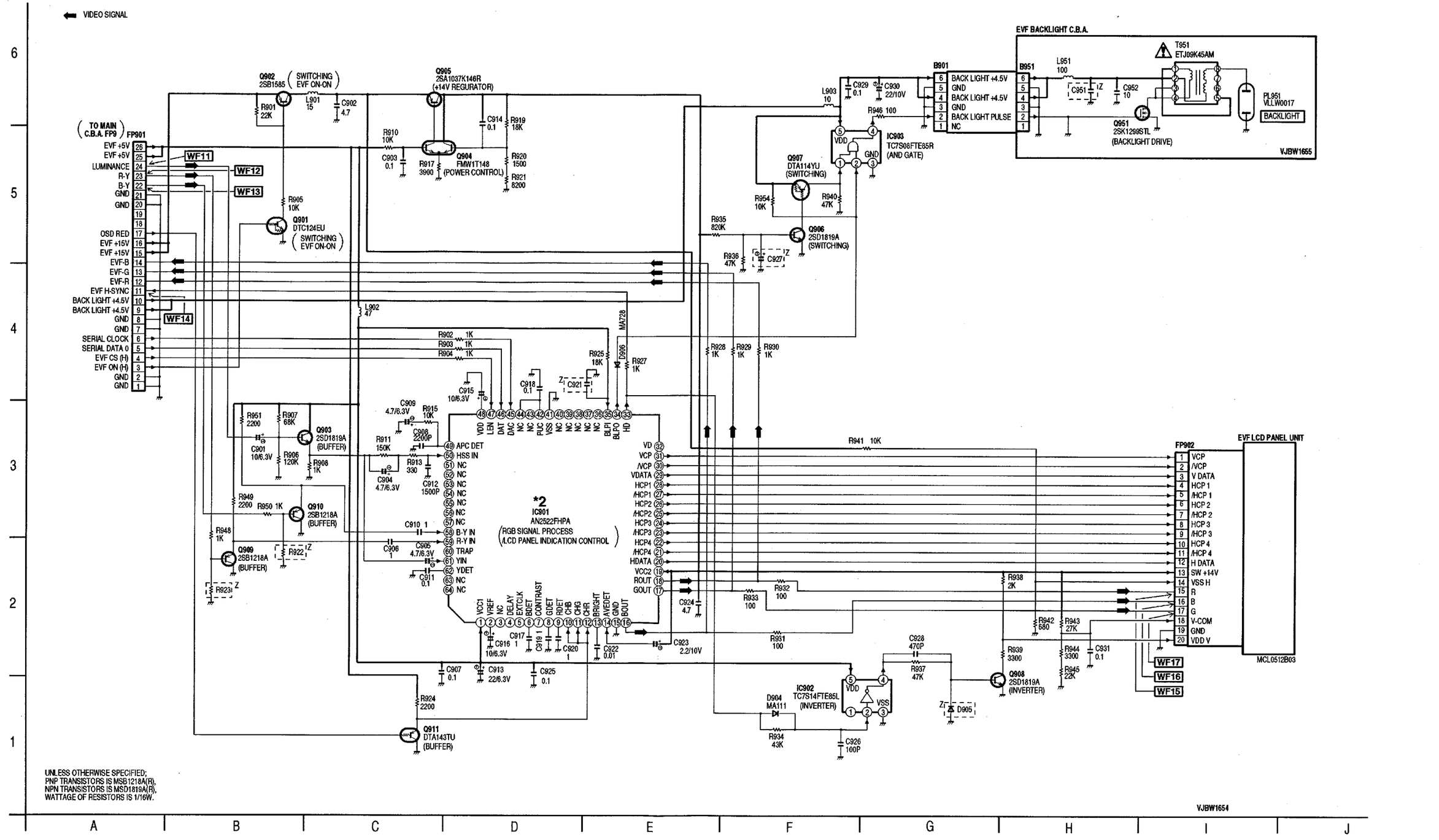
EVF DRIVE / EVF BACKLIGHT SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

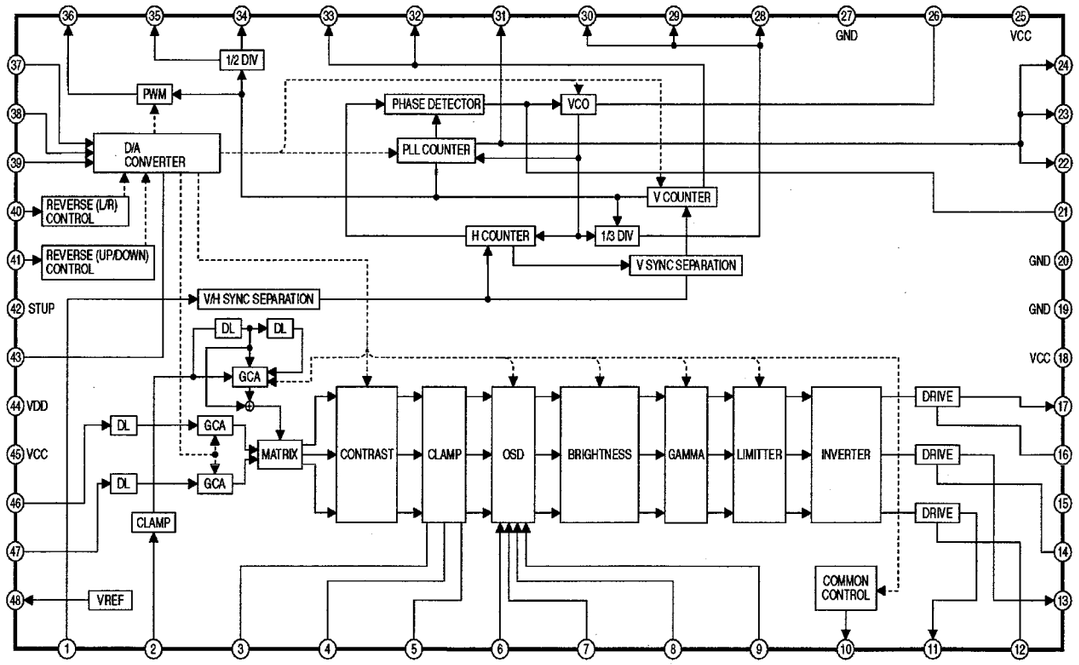
*2 NOTE: IC901 DETAIL BLOCK DIAGRAM IS REFER TO PAGE 4-8.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.

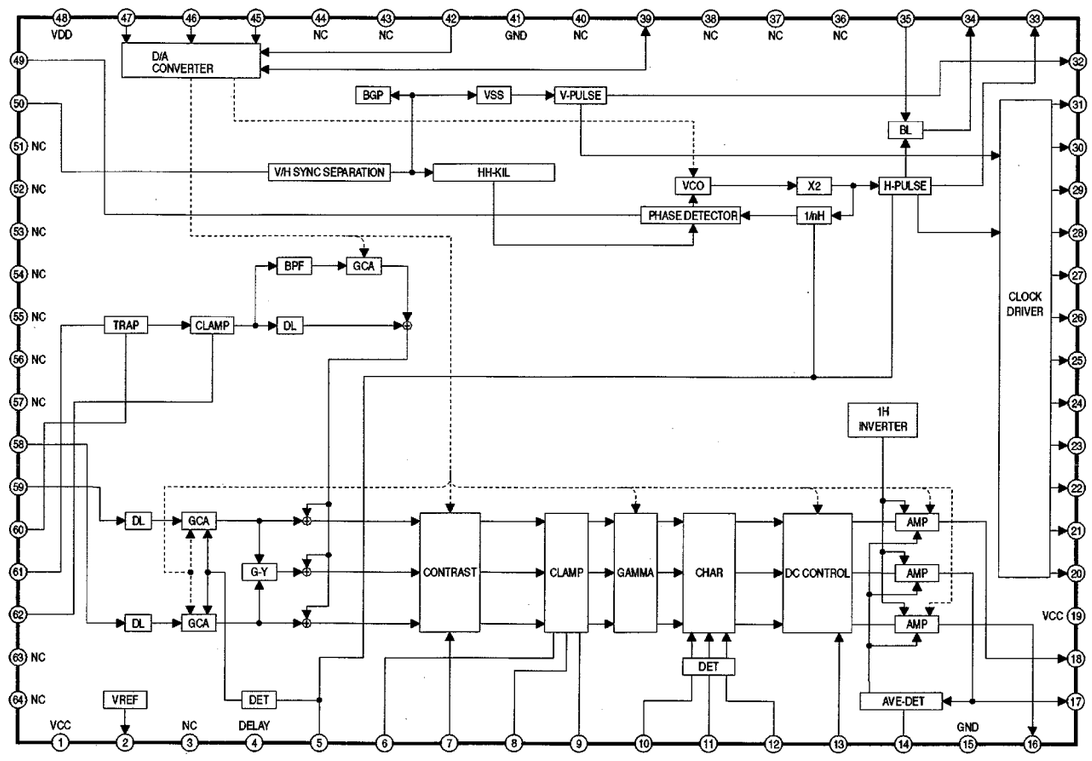


IC-DETAIL BLOCK DIAGRAM

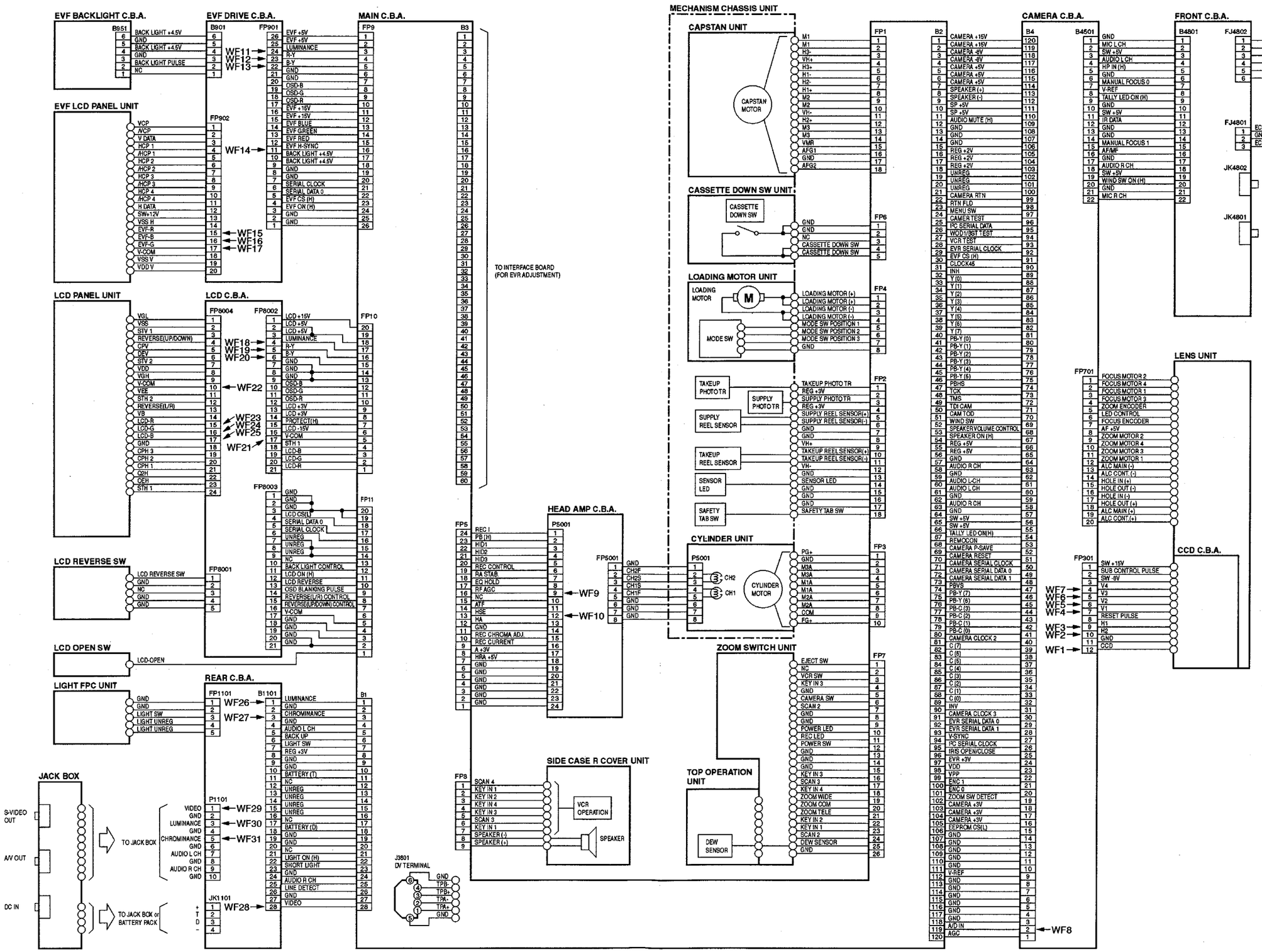
*1 IC8001 (RGB SIGNAL PROCESS / LCD PANEL INDICATOR CONTROL)



*2 IC901 (RGB SIGNAL PROCESS / LCD PANEL INDICATOR CONTROL)



INTERCONNECTION SCHEMATIC DIAGRAM



VOLTAGE CHART

CCD C.B.A.

MODE / PIN NO.	REC	PLAY
IC601		
1	1.0	---
2	1.3	---
3	8.0	---
4	-7.3	---
5	6.1	---
6	0	---
7	14.3	---
8	10.4	---
9	0	---
10	0	---
11	-0.6	---
12	-0.7	---
13	-6.8	---
14	-6.8	---
Q601		
E	9.9	---
C	14.3	---
B	10.4	---
PIN		
1	14.3	---
2	6.1	---
3	-7.3	---
4	-6.8	---
5	-6.8	---
6	-0.7	---
7	-0.6	---
8	8.0	---
9	1.3	---
10	1.0	---
11	0	---
12	9.9	---

HEAD AMP C.B.A.

MODE / PIN NO.	REC	PLAY
IC5001		
1	2.8	2.3
2	2.3	1.9
3	2.8	2.9
4	0.1	0
5	0.2	0
6	0	0
7	2.5	2.9
8	0.8	0
9	0.8	0.8
10	0	0
11	2.9	2.8
12	1.1	0.7
13	2.9	0
14	2.8	2.9
15	1.0	0.6
16	0	0
17	-2.6	0
18	4.0	0.8
19	4.6	4.6
20	0.6	1.4
21	0.1	0.8
22	2.9	2.1
23	0	0
24	2.9	1.1
25	2.8	2.9
26	0	0
27	0	0
28	-4.1	1.8
29	4.3	4.9
30	4.6	4.9
31	4.4	4.9
32	-4.1	1.8
33	0	0
34	0	0
35	2.8	2.9
36	2.1	1.1
37	0	0
38	2.9	2.1
39	0.6	0.8
40	1.2	1.4
41	0	0
42	0	0.1
43	2.8	0
44	1.3	2.9
45	0.1	1.5
46	2.8	2.9
47	0	2.9
48	2.8	0
49	0	0.1
50	0	0
51	0.3	0.1
52	0	0
53	0	0.1
54	1.1	0.8
55	0.7	2.0
56	0	0
57	2.8	1.1
58	2.8	2.2

MODE / PIN NO.	REC	PLAY
59	2.8	1.9
60	2.8	2.9
61	2.6	1.8
62	2.8	2.5
63	0	0
64	2.3	1.0
Q5002		
E	0	0
C	2.3	1.1
B	0.5	0.8
Q5003		
E	0	0
C	1.8	1.1
B	0.6	0.8
Q5005		
E	0	0
C	-0.3	0
B	-4.1	0.8
Q5006		
E	0	0
C	-0.3	0
B	-2.7	0.8
FP5001		
1	0	0
2	0	0
3	-0.3	0
4	-0.3	0
5	0	0
6	0	0
7	0	0
8	0	0
CKA1	0	0
CKA2	0	0
CKA3	-0.3	0
CKA4	-0.3	0
CKA5	0	0
P5001		
1	2.9	0
2	0	3.0
3	1.5	0
4	2.9	2.9
5	0	2.9
6	2.9	0
7	0.1	0.1
8	0	0.1
9	2.1	1.0
10	0	0
11	2.6	1.1
12	1.1	0.8
13	2.9	1.9
14	0	0
15	0.9	0
16	0.1	0.3
17	3.0	0.9
18	4.8	4.8
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0

LCD C.B.A.

MODE / PIN NO.	REC	PLAY
IC8001		
1	2.2	2.2
2	2.1	2.1
3	3.8	3.8
4	3.7	3.7
5	3.7	3.7
6	0.2	0.2
7	0.2	0.2
8	0.2	0.2
9	0.2	0.2
10	3.6	3.6
11	2.4	2.4
12	2.2	2.2
13	2.4	2.4
14	2.2	2.2
15	0	0
16	2.2	2.2
17	0.2	0.2
18	0	0
19	0	0
20	0	0
21	2.2	2.2
22	0.7	0.7
23	0.2	0.2
24	0.1	0.1
25	3.0	3.0
26	1.9	1.9
27	0	0
28	1.2	1.2
29	1.2	1.2
30	1.2	1.2
31	0.6	0.6
32	0	0
33	0	0
34	0.8	0.8
35	1.6	1.6
36	0	0
37	0.2	0.2
38	2.5	2.5
39	2.5	2.5
40	1.9	1.9
41	3.2	3.2
42	3.4	3.4
43	1.9	1.9
44	3.4	3.4
45	4.5	4.5
46	2.5	2.5
47	2.5	2.5
48	1.9	1.9
IC8002		
1	1.2	1.2
2	6.2	6.2
3	0.1	0.1
4	2.7	2.7
5	4.8	4.8
IC8003		
1	5.0	5.0
2	14.1	14.1
3	5.0	5.0

MODE / PIN NO.	REC	PLAY
4	5.3	5.3
5	10.0	10.0
IC8004		
1	0.9	0.9
2	14.2	14.2
3	1.0	1.0
4	0.1	0.1
5	4.5	4.5
Q8003		
E1	0	0
C1	2.7	2.7
B1	0	0
E2	4.5	4.5
C2	0	0
B2	0	0
Q8004		
E	0	0
C	2.8	2.8
B	0	0
Q8005		
E	-14.2	-14.2
C	-14.2	-14.2
B	4.4	4.4
Q8006		
E	3.0	3.0
C	3.0	3.0
B	2.4	2.4
Q8007		
E	0	0
C	4.5	4.5
B	0	0
Q8008		
E	0.1	0.1
C	0.5	0.5
B	3.8	3.8
Q8009		
E	2.5	2.5
C	0	0
B	2.5	2.5
Q8011		
E	2.5	2.5
C	0	0
B	2.5	2.5
Q8012		
E1	3.0	3.0
C1	2.5	2.5
B1	3.1	3.1
E2	10.1	10.1
C2	13.8	13.8
B2	10.1	10.1
Q8013		
E	14.4	14.4
C	10.1	10.1
B	13.8	13.8
Q8014		
E	0	0
C	1.9	1.9
B	0	0

MODE / PIN NO.	REC	PLAY
Q8016		
E	0	0
C	3.2	3.2
B	0	0
Q8017		
E	2.9	2.9
C	0	0
B	2.4	2.4
Q8018		
E	2.9	2.9
C	0	0
B	2.4	2.4
Q8020		
E	2.9	2.9
C	0	0
B	2.4	2.4
Q8022		
E	6.9	6.9
C	10.1	10.1
B	7.5	7.5
Q8023		
E	0	0
C	7.5	7.5
B	0	0
Q8024		
E	0.1	0.1
C	0.1	0.1
B	2.7	2.7
Q8025		
G	0.1	0.1
S	2.7	2.7
D	0.1	0.1
Q8028		
E	0	0
C	0	0
B	1.8	1.8
Q8030		
E	3.0	3.0
C	3.0	3.0
B	0	0
Q8031		
E	0.1	0.1
C	5.2	5.2
B	0.2	0.2
Q8032		
E	0.1	0.1
C	5.2	5.2
B	0.2	0.2
Q8037		
E	1.6	1.6
C	1.6	1.6
B	2.1	2.1
Q8038		
G	6.3	6.3
S	4.7	4.7
D	1.2	1.2
FP8001		
1	2.2	2.2

MODE / PIN NO.	REC	PLAY
2	0	0
3	0	0
4	0	0
5	0	0
FP8002		
1	14.4	14.4
2	4.5	4.5
3	4.5	4.5
4	2.1	2.1
5	2.5	2.5
6	2.5	2.5
7	0	0
8	0	0
9	0	0
10	0.2	0.2
11	0.2	0.2
12	0.2	0.2
13	3.0	3.0
14	3.0	3.0
15	1.6	1.6
16	-14.2	-14.2
17	0.2	0.2
18	0	0
19	1.5	1.5
20	2.9	2.9
21	2.9	2.9
FP8003		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.6	2.6
6	2.7	2.7
7	6.2	6.2
8	6.2	6.2
9	6.2	6.2
10	0	0
11	0	0
12	2.8	2.8
13	2.7	2.7
14	0.1	0.1
15	0	0
16	0	0
17	1.8	1.8
18	0	0
19	0	0
20	0	0
21	0	0
FP8004		
1	-6.1	-6.1
2	-14.2	-14.2
3	0	0
4	-14.1	-14.1
5	0.8	0.8
6	0.6	0.6
7	0	0
8	3.0	3.0
9	10.0	10.0
10	0.1	0.1

MODE / PIN NO.	REC	PLAY
11	4.4	4.4
12	0.2	0.2
13	3.0	3.0
14	2.3	2.3
15	2.4	2.4
16	2.4	2.4
17	2.4	2.4
18	0	0
19	1.2	1.2
20	1.2	1.2
21	1.2	1.2
22	1.6	1.6
23	0.7	0.7
24	0.1	0.1

FRONT C.B.A.

MODE / PIN NO.	REC	PLAY
IC4801		
1	2.6	2.6
2	2.6	2.6
3	2.9	2.9
4	4.5	4.5
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	2.6	2.6
9	2.6	2.6
10	2.9	2.9
11	0	0
12	2.6	2.6
13	2.7	2.7
14	0	0
IC6501		
1	4.5	4.5
2	0	0
3	0	0
4	4.9	4.9
Q4801		
E	1.8	1.8
C	0	0
B	2.4	2.4
Q4802		
E	0.1	0.1
C	0	0
B	0	0
Q4803		
E	0	0
C	4.3	4.3
B	0	0
Q4804		
E	0.1	0.1
C	0	0
B	0	0
Q4805		
E	0.5	0.5
C	3.7	3.7
B	1.1	1.1
Q4806		
E	0	0
C	1.1	1.1
B	3.7	3.7
Q4807		
E	0.5	0.5
C	3.7	3.7
B	1.1	1.1
Q4808		
E	4.3	4.3
C	1.1	1.1
B	3.7	3.7
Q4809		
E	4.3	4.3
C	4.9	4.9
B	4.9	4.9
Q4810		
E	4.3	4.3
C	4.9	4.9

MODE / PIN NO.	REC	PLAY
B	4.9	4.9
Q4811		
E	0.1	0.1
C	0	0
B	1.1	1.1
Q4812		
E	1.7	1.7
C	0.1	0.1
B	1.1	1.1
B4801		
1	0.1	0.1
2	0	0
3	0	0
4	4.9	4.9
5	0	0
6	0	0
7	3.2	3.2
8	0.3	0.3
9	0.1	0.1
10	0.1	0.1
11	4.5	4.5
12	0	0
13	0	0
14	0	0
15	0	0
16	3.2	3.2
17	0	0
18	0	0
19	4.9	4.9
20	0	0
21	0	0
22	0	0
FJ4801		
1	0	0
2	0	0
3	0	0
FJ4802		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

REAR C.B.A.

MODE / PIN NO.	REC	PLAY
Q1101		
E	0	0
C	7.0	7.0
B	6.3	6.3
Q1102		
E	0	0
C	7.0	7.0
B	0	0
Q1103		
E	0	0
C	0	0
B	0	0
Q1104		
E	0	0
C	0	0
B	0	0
Q1105		
E	0	0
C	0	0
B	0	0
Q1106		
E	0	0
C	0	0
B	0.6	0.6
Q1107		
E	0	0
C	0.6	0.6
B	0	0
P1101		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
FP1101		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
B1101		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	2.5	2.5
12	0	0

MODE / PIN NO.	REC	PLAY
13	7.0	7.0
14	7.0	7.0
15	7.0	7.0
16	7.0	7.0
17	0	0
18	2.5	2.5
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	2.9	2.9
27	0	0
28	0	0

EVF DRIVE C.B.A.

MODE / PIN NO.	REC	PLAY
IC901		
1	4.5	4.5
2	2.0	2.0
3	0.1	0.1
4	0.1	0.1
5	0	0
6	3.6	3.6
7	1.8	1.8
8	3.6	3.6
9	3.6	3.6
10	0.1	0.1
11	0.1	0.1
12	0	0
13	1.9	1.9
14	6.8	6.8
15	0	0
16	7.0	7.0
17	7.0	7.0
18	13.8	13.8
19	13.7	13.7
20	3.5	3.5
21	7.4	7.4
22	7.4	7.4
23	7.4	7.4
24	7.4	7.4
25	7.4	7.4
26	7.4	7.4
27	7.4	7.4
28	5.5	5.5
29	3.0	3.0
30	7.4	7.4
31	7.4	7.4
32	4.3	4.3
33	3.8	3.8
34	0.9	0.9
35	3.9	3.9
36	0	0
37	0	0
38	0	0
39	2.2	2.2
40	0	0
41	0	0
42	3.3	3.3
43	0	0
44	3.3	3.3
45	3.0	3.0
46	0.5	0.5
47	0	0
48	3.3	3.3
49	2.6	2.6
50	3.1	3.1
51	0	0
52	0	0
53	0	0
54	0	0
55	0	0
56	0	0
57	0	0
58	2.7	2.7

MODE / PIN NO.	REC	PLAY
59	2.7	2.7
60	2.6	2.6
61	3.3	3.3
62	3.6	3.6
63	0	0
64	0	0
IC902		
1	0	0
2	4.1	4.1
3	0	0
4	0.3	0.3
5	4.5	4.5
IC903		
1	4.6	4.6
2	0	0
3	0	0
4	0.9	0.9
5	4.5	4.5
Q901		
E	0	0
C	0	0
B	2.7	2.7
Q902		
E	14.5	14.5
C	14.5	14.5
B	0	0
Q903		
E	1.2	1.2
C	4.5	4.5
B	1.8	1.8
Q904		
E1	13.8	13.8
C1	13.9	13.9
B1	4.6	4.6
E2	4.1	4.1
C2	4.6	4.6
B2	3.8	3.8
Q905		
E	14.5	14.5
C	13.9	13.9
B	13.8	13.8
Q906		
E	0	0
C	0	0
B	0.5	0.5
Q907		
E	4.5	4.5
C	4.6	4.6
B	0	0
Q908		
E	0	0
C	13.7	13.7
B	-0.5	-0.5
Q909		
E	2.0	2.0
C	4.5	4.5
B	2.5	2.5
Q910		

MODE / PIN NO.	REC	PLAY
E	1.9	1.9
C	4.5	4.5
B	2.5	2.5
Q911		
E	0	0
C	0	0
B	0.1	0.1
FP901		
1	0	0
2	0	0
3	2.7	2.7
4	0	0
5	0	0
6	3.0	3.0
7	0	0
8	0	0
9	4.5	4.5
10	2.7	2.7
11	4.5	4.5
12	7.0	7.0
13	7.1	7.1
14	7.1	7.1
15	14.5	14.5
16	14.5	14.5
17	0.1	0.1
18	0.1	0.1
19	0.1	0.1
20	0	0
21	0	0
22	2.5	2.5
23	2.5	2.5
24	1.5	1.5
25	4.5	4.5
26	4.5	4.5
FP902		
1	7.4	7.4
2	7.4	7.4
3	2.9	2.9
4	5.4	5.4
5	8.3	8.3
6	7.5	7.5
7	7.3	7.3
8	7.4	7.4
9	7.4	7.4
10	7.4	7.4
11	8.3	8.3
12	3.4	3.4
13	13.7	13.7
14	14.1	14.1
15	4.1	4.1
16	5.2	5.2
17	4.3	4.3
18	6.2	6.2
19	0	0
20	14.5	14.5
B901		
1	0	0
2	0.9	0.9

EVF BACKLIGHT C.B.A.

MODE / PIN NO.	REC	PLAY
3	0	0
4	4.5	4.5
5	0	0
6	4.5	4.5

MODE / PIN NO.	REC	PLAY
Q951		
G	0	0
S	4.5	4.5
D	0.9	0.9
B951		
1	0	0
2	0.9	0.9
3	0	0
4	4.5	4.5
5	0	0
6	4.5	4.5

AC MAIN C.B.A.

MODE / PIN NO.	REC	PLAY
IC01		
1	5.7	5.7
2	0.1	0.1
3	136.8	136.8
IC02		
1	1.8	1.8
2	0.7	0.7
3	5.7	5.7
4	12.8	12.8
IC21		
1	12.6	12.6
2	0	0
3	5.1	5.1
Q01		
E1	0	0
C1	5.7	5.7
B1	0	0
E2	5.7	5.7
C2	0	0
B2	5.7	5.7
Q21		
E	8.1	8.1
C	6.7	6.7
B	7.7	7.7
Q22		
E	8.1	8.1
C	6.7	6.7
B	7.7	7.7
Q23		
E1	0	0
C1	7.7	7.7
B1	0	0
E2	0	0
C2	7.7	7.7
B2	0	0
P02		
1	0	0
2	0	0
3	7.2	7.2
4	0	0
5	1.8	1.8
6	12.6	12.6
7	5.1	5.1
8	4.2	4.2
9	8.1	8.1
10	0	0
11	0	0
12	6.7	6.7
13	6.7	6.7

AC MODULE C.B.A.

MODE / PIN NO.	REC	PLAY
IC203		
1	0	0
2	4.2	4.2
3	0.1	0.1
4	12.6	12.6
5	4.2	4.2
6	4.2	4.2
7	2.9	2.9
8	0	0
9	5.0	5.0
10	0	0
11	0	0
12	0.1	0.1
13	4.3	4.3
14	0	0
IC204		
1	0.1	0.1
2	0	0
3	0	0
4	8.1	8.1
5	8.1	8.1
6	8.1	8.1
7	8.1	8.1
8	3.4	3.4
9	2.3	2.3
10	2.3	2.3
11	0	0
12	2.3	2.3
13	2.3	2.3
14	3.4	3.4
IC205		
1	0.1	0.1
2	0.1	0.1
3	4.3	4.3
4	5.1	5.1
5	2.6	2.6
6	3.8	3.8
7	3.8	3.8
8	3.8	3.8
9	1.8	1.8
10	0.1	0.1
11	0.1	0.1
12	0.1	0.1
13	5.1	5.1
14	0	0
15	5.0	5.0
16	0	0
17	5.0	5.0
18	5.0	5.0
19	5.0	5.0
20	2.3	2.3
21	2.3	2.3
22	5.1	5.1
23	4.8	4.8
24	5.1	5.1
25	5.1	5.1
26	5.1	5.1
27	3.4	3.4
28	3.4	3.4

MODE / PIN NO.	REC	PLAY
29	0	0
30	5.1	5.1
31	5.0	5.0
32	0	0
Q203		
E1	5.1	5.1
C1	4.7	4.7
B1	5.1	5.1
E2	3.4	3.4
C2	2.6	2.6
B2	3.7	3.7
QR201		
E	0	0
C	5.0	5.0
B	0.1	0.1
QR203		
E1	0	0
C1	0	0
B1	5.0	5.0
E2	5.1	5.1
C2	5.0	5.0
B2		
QR205		
E1	4.2	4.2
C1	4.2	4.2
B1	0.1	0.1
E2	0	0
C2	0.1	0.1
B2	0.1	0.1
P201		
1	0	0
2	0	0
3	7.2	7.2
4	0	0
5	1.8	1.8
6	12.6	12.6
7	5.1	5.1
8	4.2	4.2
9	8.1	8.1
10	0	0
11	0	0
12	6.7	6.7
13	6.7	6.7
P202		
1	6.7	6.7
2	5.1	5.1
3	5.1	5.1
4	0	0
5	6.7	6.7
6	5.1	5.1
7	5.1	5.1
8	0	0

MAIN CIRCUIT

MODE / PIN NO.	REC	PLAY
FP1		
1	0.4	0.4
2	0.4	0.4
3	2.5	2.5
4	3.0	3.0
5	2.5	2.5
6	1.5	1.5
7	0.5	0.5
8	1.5	1.5
9	0.4	0.4
10	0.4	0.4
11	0	0
12	0.5	0.5
13	0.5	0.5
14	0.5	0.5
15	2.6	2.6
16	1.3	1.3
17	0	0
18	1.3	1.3
FP2		
1	0.1	0.1
2	3.0	3.0
3	0.1	0.1
4	3.0	3.0
5	1.5	1.5
6	1.5	1.5
7	2.9	2.9
8	3.0	3.0
9	3.0	3.0
10	1.5	1.5
11	1.5	1.5
12	0	0
13	2.9	2.9
14	0.1	0.1
15	0	0
16	0	0
17	0	0
18	2.9	2.9
FP3		
1	0	0
2	0	0
3	1.4	1.4
4	1.4	1.4
5	1.4	1.4
6	1.4	1.4
7	1.4	1.4
8	1.4	1.4
9	1.4	1.4
10	0	0
FP4		
1	0.1	0.1
2	0	0
3	0	0
4	0	0
5	2.9	2.9
6	2.9	2.9
7	0	0
8	0.1	0.1

MODE / PIN NO.	REC	PLAY
FP5		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	4.8	4.8
8	3.0	0.9
9	0.1	0.3
10	0.9	0
11	0	0
12	2.9	1.9
13	1.1	0.8
14	2.6	1.1
15	0	0
16	2.1	1.0
17	0	0.1
18	0.1	0.1
19	2.9	0
20	0	2.9
21	2.9	2.9
22	1.5	0
23	0	3.0
24	2.9	0
FP6		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
FP7		
1	3.4	3.4
2	0	0
3	3.4	3.4
4	3.0	3.0
5	0	0
6	0.1	0.1
7	2.9	2.9
8	0	0
9	0	0
10	1.8	1.8
11	0	0
12	3.2	3.2
13	0	0
14	3.2	3.2
15	3.2	3.2
16	3.0	3.0
17	2.9	2.9
18	3.0	3.0
19	0	0
20	1.4	1.4
21	0	0
22	3.0	3.0
23	5.6	5.6
24	2.9	2.9
25	0.9	0.9
26	0	0

MODE / PIN NO.	REC	PLAY
FP8		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
FP9		
1	4.5	4.5
2	4.5	4.5
3	1.5	1.5
4	2.5	2.5
5	2.5	2.5
6	0	0
7	0	0
8	0.1	0.1
9	0.1	0.1
10	0.1	0.1
11	14.5	14.5
12	14.5	14.5
13	7.1	7.1
14	7.1	7.1
15	7.0	7.0
16	4.5	4.5
17	2.7	2.7
18	4.5	4.5
19	0	0
20	0	0
21	3.0	3.0
22	0	0
23	0	0
24	2.7	2.7
25	0	0
26	0	0
FP10		
1	2.9	2.9
2	2.9	2.9
3	1.5	1.5
4	0	0
5	0.2	0.2
6	-14.2	-14.2
7	1.6	1.6
8	3.0	3.0
9	3.0	3.0
10	0.2	0.2
11	0.2	0.2
12	0.2	0.2
13	0	0
14	0	0
15	0	0
16	2.5	2.5
17	2.5	2.5
18	2.1	2.1
19	4.5	4.5
20	4.5	4.5
21	14.4	14.4

MODE / PIN NO.	REC	PLAY
FP11		
1	0	0
2	0	0
3	0	0
4	0	0
5	1.8	1.8
6	0	0
7	0	0
8	0.1	0.1
9	2.7	2.7
10	2.8	2.8
11	0	0
12	0	0
13	6.2	6.2
14	6.2	6.2
15	6.2	6.2
16	2.7	2.7
17	2.6	2.6
18	0	0
19	0	0
20	0	0
21	0	0
B1		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	2.5	2.5
12	0	0
13	7.0	7.0
14	7.0	7.0
15	7.0	7.0
16	7.0	7.0
17	0	0
18	2.5	2.5
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	2.9	2.9
27	0	0
28	0	0
B2		
1	1.4	---
2	0.8	---
3	0	---
4	0	---
5	0	---
6	0	---

MODE / PIN NO.	REC	PLAY
7	0	---
8	0	---
9	0.1	---
10	0.1	---
11	0.1	---
12	0.1	---
13	0.1	---
14	3.2	---
15	3.2	---
16	3.2	---
17	0	---
18	1.4	---
19	3.2	---
20	3.2	---
21	0.1	---
22	3.2	---
23	2.5	---
24	3.0	---
25	3.2	---
26	0.2	---
27	3.2	---
28	0.6	---
29	0	---
30	1.1	---
31	1.2	---
32	1.0	---
33	1.0	---
34	1.0	---
35	1.0	---
36	1.0	---
37	1.0	---
38	1.0	---
39	1.1	---
40	1.0	---
41	0	---
42	0	---
43	0	---
44	0	---
45	0	---
46	0	---
47	0	---
48	2.9	---
49	0.4	---
50	1.0	---
51	2.9	---
52	2.9	---
53	4.5	---
54	4.9	---
55	4.9	---
56	4.9	---
57	0	---
58	0	---
59	0	---
60	0	---
61	0	---
62	0	---
63	0	---
64	0	---
65	4.9	---

MODE / PIN NO.	REC	PLAY
66	4.9	---
67	2.9	---
68	4.5	---
69	2.9	---
70	3.2	---
71	1.4	---
72	0.4	---
73	2.9	---
74	0.1	---
75	0.1	---
76	0.1	---
77	0.1	---
78	0.1	---
79	0.1	---
80	1.0	---
81	0	---
82	1.0	---
83	1.1	---
84	1.2	---
85	0.8	---
86	0.9	---
87	0.8	---
88	0.8	---
89	0.8	---
90	1.1	---
91	0	---
92	0.4	---
93	0	---
94	0.2	---
95	0	---
96	2.6	---
97	0.1	---
98	3.2	---
99	0.1	---
100	3.2	---
101	3.2	---
102	1.4	---
103	3.2	---
104	3.2	---
105	0	---
106	3.2	---
107	0	---
108	0	---
109	0	---
110	0	---
111	0	---
112	2.7	---
113	0	---
114	0	---
115	0	---
116	0	---
117	0	---
118	0	---
119	0.8	---
120	1.4	---

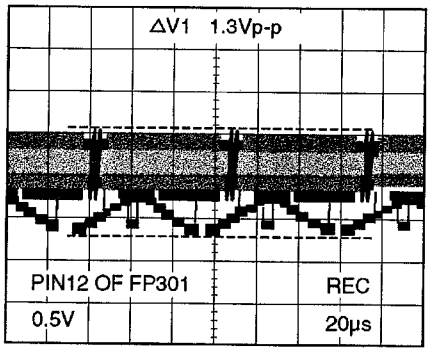
CAMERA CIRCUIT

MODE / PIN NO.	REC	PLAY
FP301		
1	14.3	---
2	6.1	---
3	-7.3	---
4	-6.8	---
5	-6.8	---
6	-0.7	---
7	-0.6	---
8	8.0	---
9	1.3	---
10	1.0	---
11	0	---
12	9.9	---
FP701		
1	1.1	---
2	1.1	---
3	1.1	---
4	1.1	---
5	2.1	---
6	1.1	---
7	0	---
8	4.5	---
9	0	---
10	0	---
11	0	---
12	0	---
13	0	---
14	1.2	---
15	1.1	---
16	0	---
17	-1.1	---
18	1.1	---
19	1.0	---
20	0	---
B4		
1	1.4	---
2	0.8	---
3	0	---
4	0	---
5	0	---
6	0	---
7	0	---
8	0	---
9	0.1	---
10	0.1	---
11	0.1	---
12	0.1	---
13	0.1	---
14	3.2	---
15	3.2	---
16	3.2	---
17	0	---
18	1.4	---
19	3.2	---
20	3.2	---
21	0.1	---
22	3.2	---
23	2.5	---
24	3.0	---

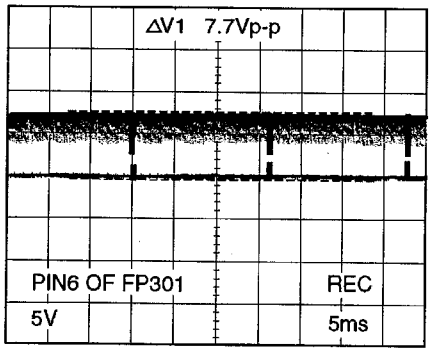
MODE / PIN NO.	REC	PLAY
25	3.2	---
26	0.2	---
27	3.2	---
28	0.6	---
29	0	---
30	1.1	---
31	1.2	---
32	1.0	---
33	1.0	---
34	1.0	---
35	1.0	---
36	1.0	---
37	1.0	---
38	1.0	---
39	1.1	---
40	1.0	---
41	0	---
42	0	---
43	0	---
44	0	---
45	0	---
46	0	---
47	0	---
48	2.9	---
49	0.4	---
50	1.0	---
51	2.9	---
52	2.9	---
53	4.5	---
54	4.9	---
55	4.9	---
56	4.9	---
57	0	---
58	0	---
59	0	---
60	0	---
61	0	---
62	0	---
63	0	---
64	0	---
65	4.9	---
66	4.9	---
67	2.9	---
68	4.5	---
69	2.9	---
70	3.2	---
71	1.4	---
72	0.4	---
73	2.9	---
74	0.1	---
75	0.1	---
76	0.1	---
77	0.1	---
78	0.1	---
79	0.1	---
80	1.0	---
81	0	---
82	1.0	---
83	1.1	---

MODE / PIN NO.	REC	PLAY
84	1.2	---
85	0.8	---
86	0.9	---
87	0.8	---
88	0.8	---
89	0.8	---
90	1.1	---
91	0	---
92	0.4	---
93	0	---
94	0.2	---
95	0	---
96	2.6	---
97	0.1	---
98	3.2	---
99	0.1	---
100	3.2	---
101	3.2	---
102	1.4	---
103	3.2	---
104	3.2	---
105	0	---
106	3.2	---
107	0	---
108	0	---
109	0	---
110	0	---
111	0	---
112	2.7	---
113	0	---
114	0	---
115	0	---
116	0	---
117	0	---
118	0	---
119	0.8	---
120	1.4	---
B4501		
1	0.1	---
2	0	---
3	0	---
4	4.9	---
5	0	---
6	0	---
7	3.2	---
8	0.3	---
9	0.1	---
10	0.1	---
11	4.5	---
12	0	---
13	0	---
14	0	---
15	0	---
16	3.2	---
17	0	---
18	0	---
19	4.9	---
20	0	---
21	0	---
22	0	---

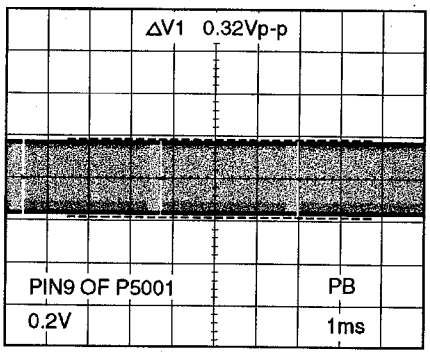
SIGNAL WAVEFORM



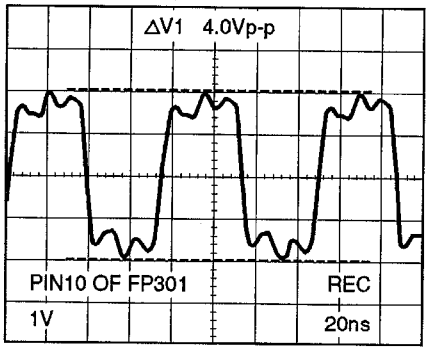
WF1



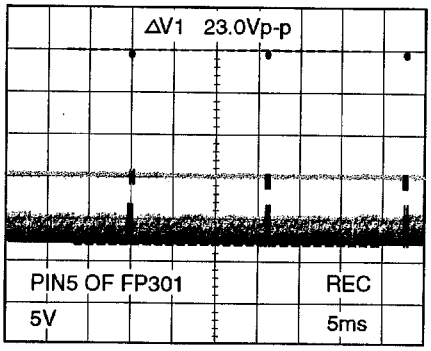
WF5



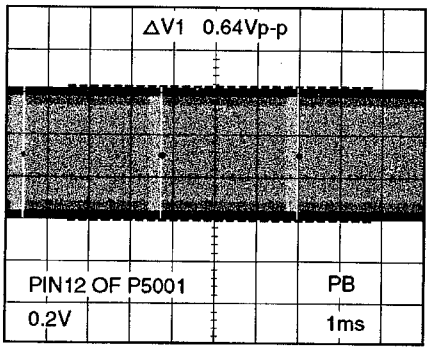
WF9



WF2



WF6



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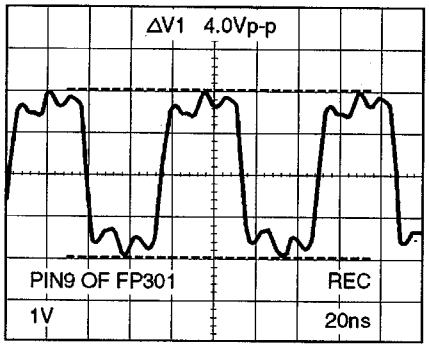
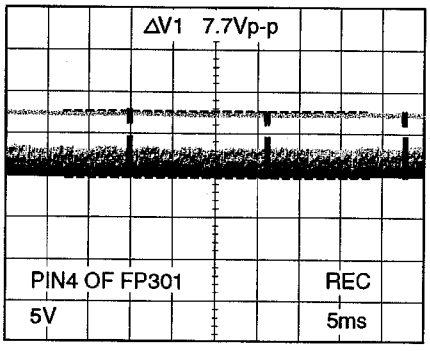
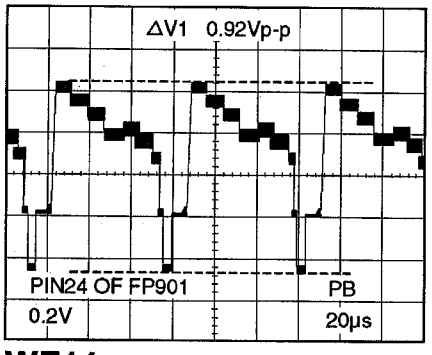


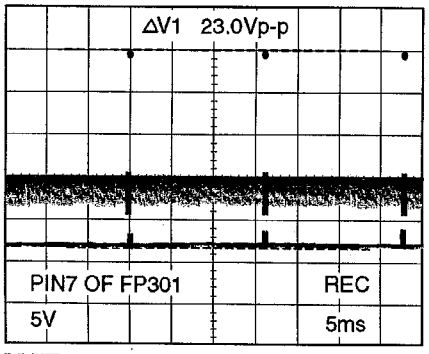
WF3



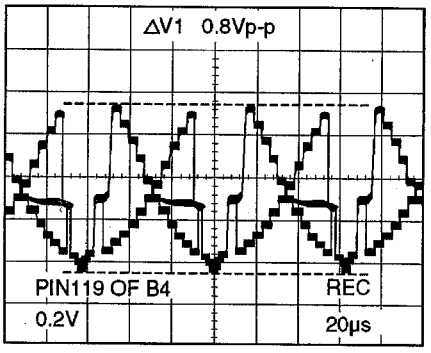
WF7



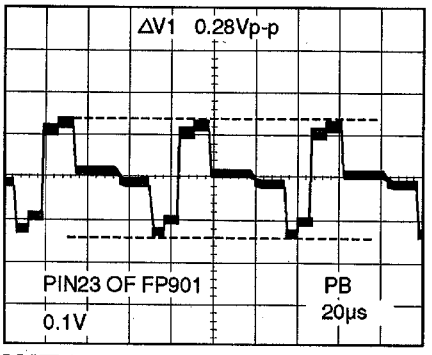
WF11



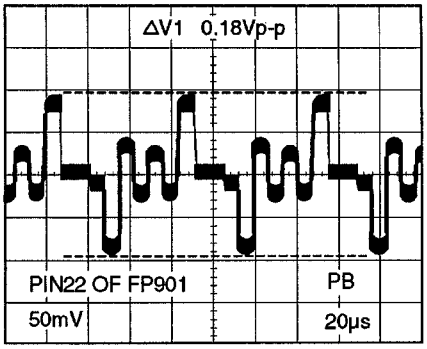
WF4



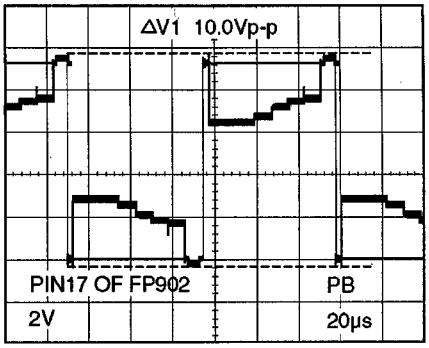
WF8



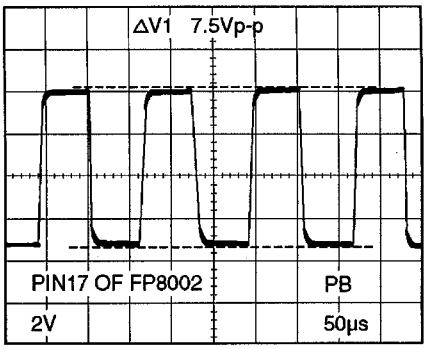
WF12



WF13



WF17



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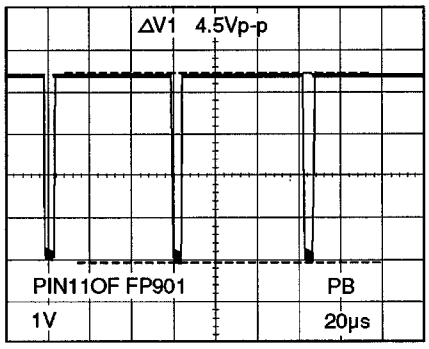
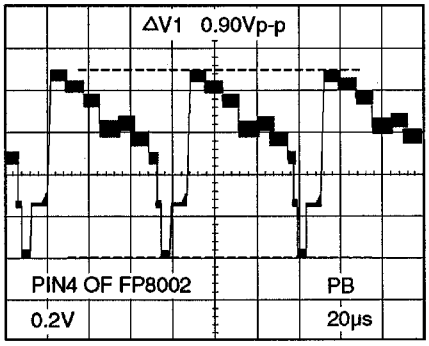
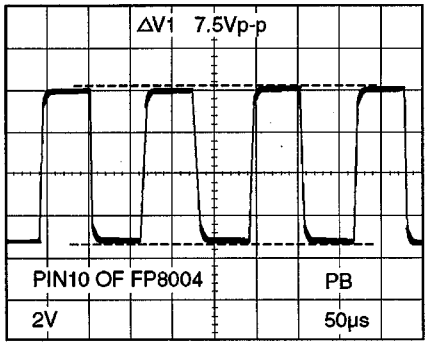


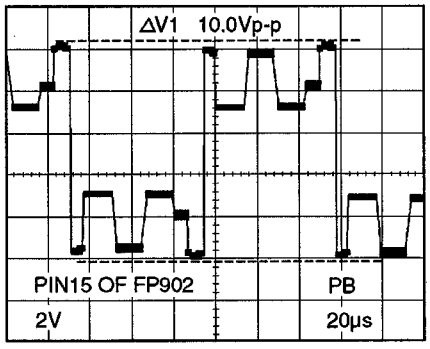
WF14



WF18



WF22



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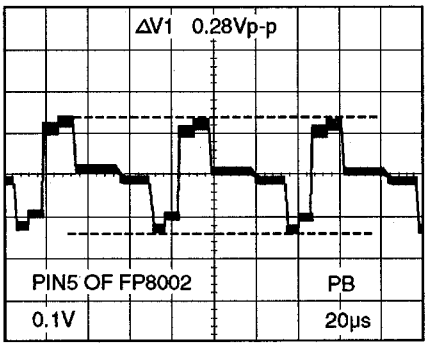
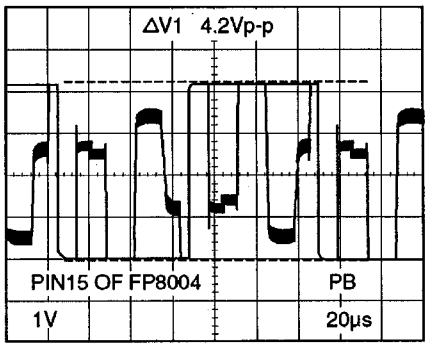


WF19



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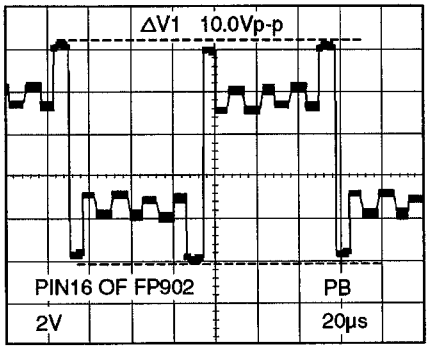
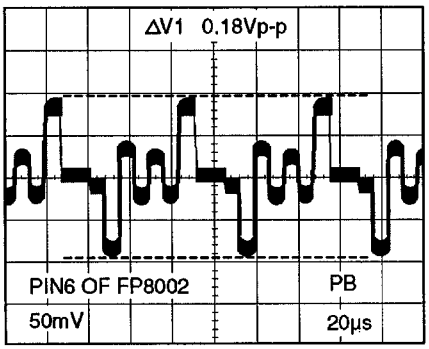


WF16



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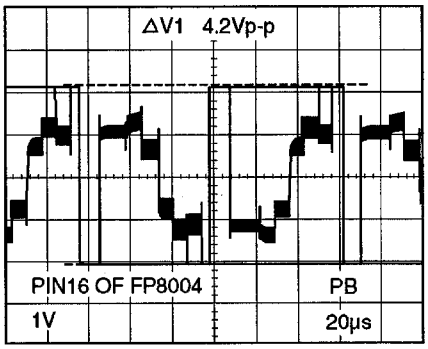
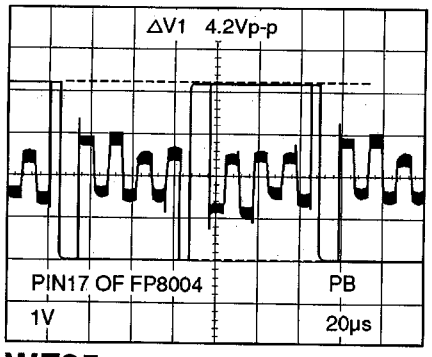
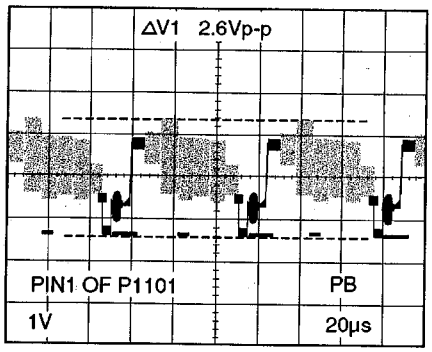


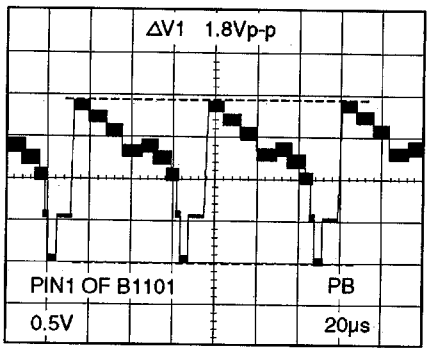
WF24



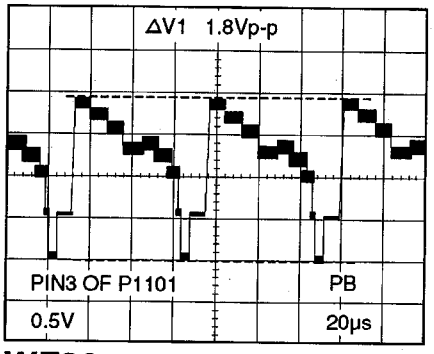
WF25



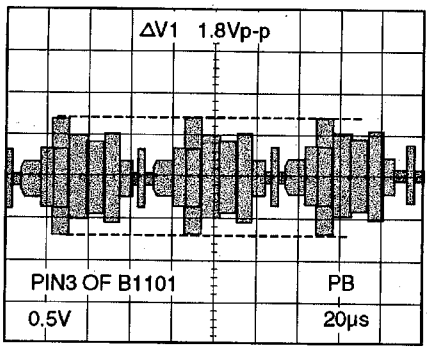
WF29



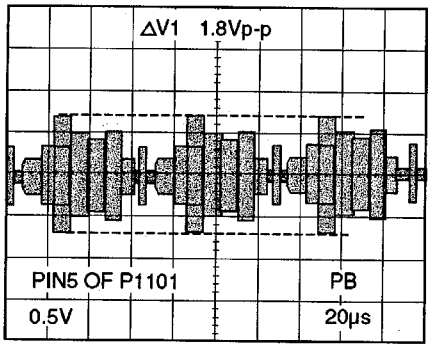
WF26



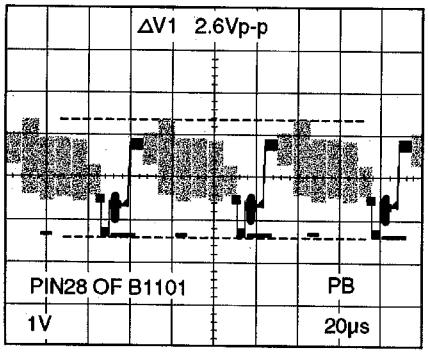
WF30



WF27



WF31



WF28

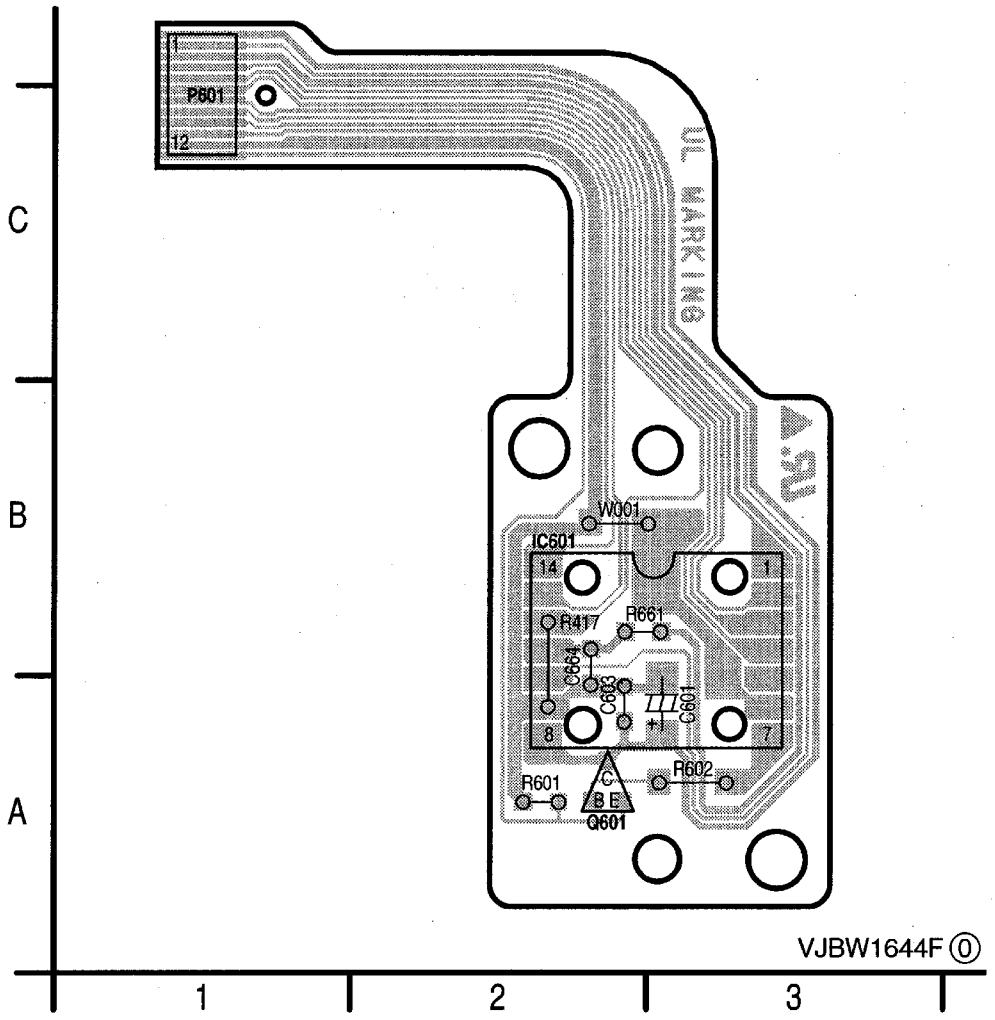
CIRCUIT BOARD LAYOUT

CCD C.B.A. VEQW0284

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

CCD C.B.A.	
Integrated Circuit	
IC601	B-2
Transistor	
Q601	A-2
Connector	
P601	C-1
Capacitor	
C601	A-3
C603	A-2
C664	B-2
Resistor	
R601	A-2
R602	A-3
R661	B-2
Wire	
W001	B-2

ADDRESS INFORMATION



HEAD AMP C.B.A. VEQW0289

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

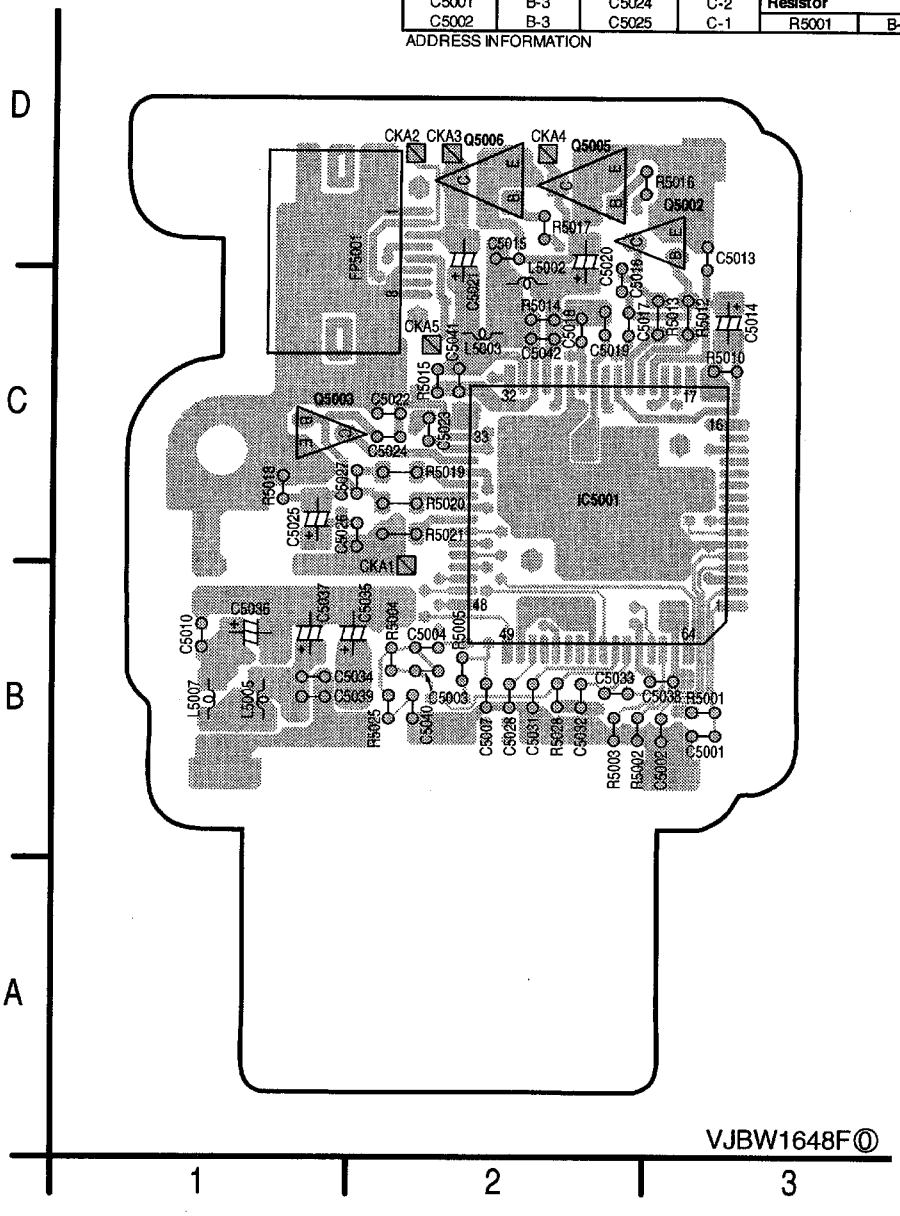
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE: MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

HEAD AMP C.B.A.

Integrated Circuit		C5003	B-2	C5026	C-1	R5002	B-3
IC5001	C-2	C5004	B-2	C5027	C-1	R5003	B-2
Transistor		C5007	B-2	C5028	B-2	R5004	B-2
Q5002	D-3	C5010	B-1	C5031	B-2	R5005	B-2
Q5003	C-1	C5013	D-3	C5032	B-2	R5010	C-3
Q5005	D-2	C5014	C-3	C5033	B-2	R5012	C-3
Q5006	D-2	C5015	D-1	C5034	B-1	R5013	C-3
Connector		C5016	C-2	C5035	B-2	R5014	C-2
FP5001	C-2	C5017	C-2	C5036	B-1	R5015	C-2
Coil		C5018	C-2	C5037	B-1	R5016	D-3
L5002	C-2	C5019	C-2	C5038	B-3	R5017	D-2
L5003	C-2	C5020	C-2	C5039	B-1	R5018	C-1
L5005	B-1	C5021	C-2	C5040	B-2	R5019	C-2
L5007	B-1	C5022	C-2	C5041	C-2	R5020	C-2
Capacitor		C5023	C-2	C5042	C-2	R5021	C-2
C5001	B-3	C5024	C-2	**Resistor**		R5025	B-2
C5002	B-3	C5025	C-1	R5001	B-3	R5028	B-2

ADDRESS INFORMATION

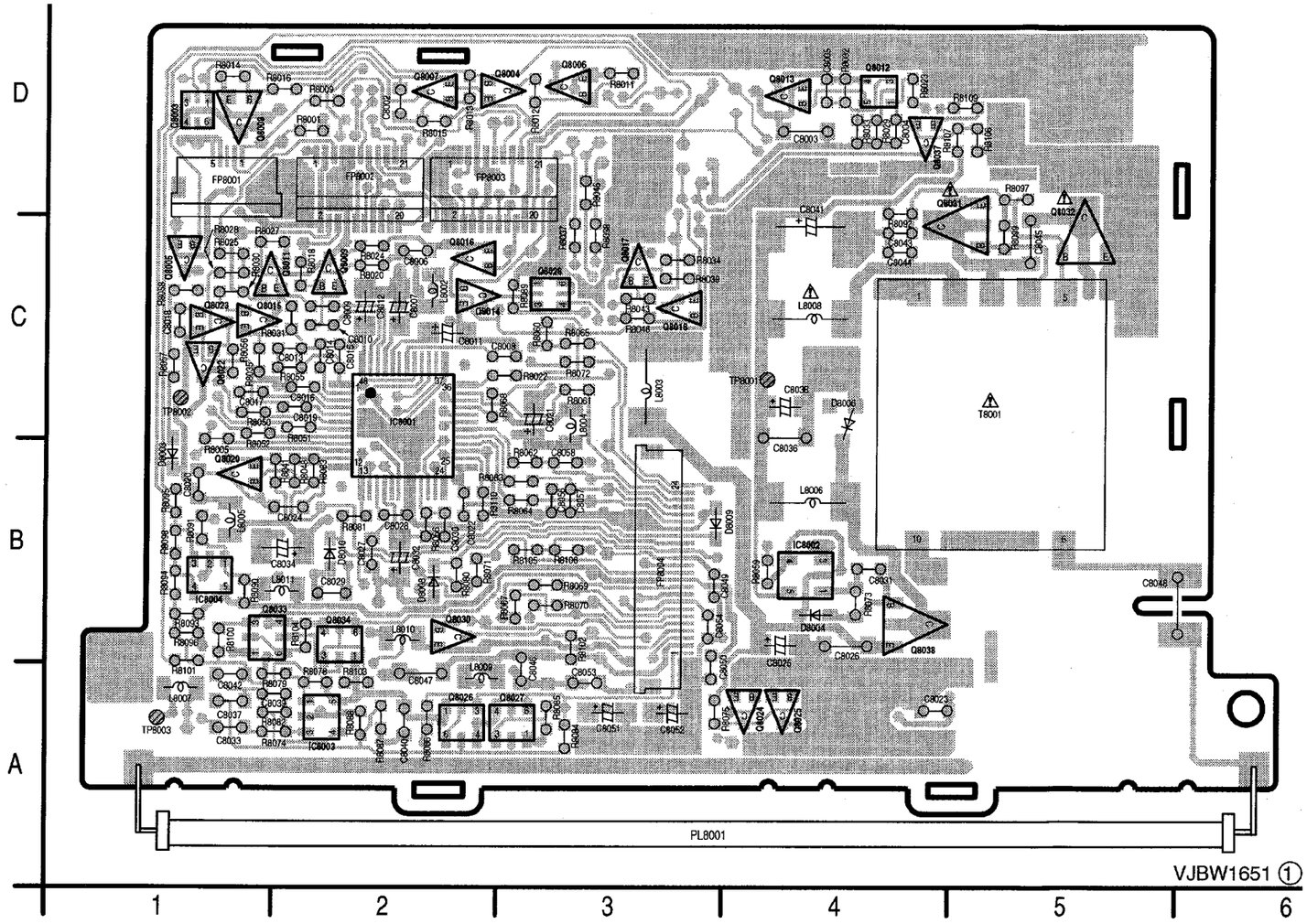


LCD C.B.A. VEPW1651A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.



LCD C.B.A.									
Integrated Circuit		L8009	A-2	C8056	B-3	R8072	C-3		
IC8001	C-2	L8010	B-2	C8057	B-3	R8073	B-4		
IC8002	B-4	L8011	B-2	C8058	B-3	R8074	A-1		
IC8003	A-2	**Capacitor**		**Resistor**		R8075	A-4		
IC8004	B-1	C8002	D-2	R8001	D-2	R8078	A-2		
Transistor		C8003	D-4	R8005	B-1	R8079	A-1		
Q8003	D-1	C8004	D-4	R8009	D-2	R8080	B-2		
Q8004	D-2	C8005	D-4	R8011	D-3	R8081	B-2		
Q8005	C-1	C8006	C-2	R8012	D-3	R8082	A-1		
Q8006	D-3	C8007	C-2	R8013	D-2	R8083	B-2		
Q8007	D-2	C8008	C-3	R8014	D-1	R8084	A-3		
Q8008	D-1	C8009	C-2	R8015	D-2	R8085	A-3		
Q8009	C-2	C8010	C-2	R8016	D-1	R8086	A-2		
Q8011	C-2	C8011	C-2	R8018	C-2	R8087	A-2		
Q8012	D-4	C8012	C-2	R8020	C-2	R8088	A-2		
Q8013	D-4	C8013	C-2	R8022	C-3	R8089	C-3		
Q8014	C-2	C8014	C-2	R8023	D-4	R8090	B-1		
Q8015	C-1	C8015	C-2	R8024	C-2	R8091	B-1		
Q8016	C-2	C8016	C-2	R8025	C-1	R8092	C-4		
Q8017	C-3	C8017	C-1	R8027	C-1	R8093	B-1		
Q8018	C-3	C8018	C-1	R8028	C-1	R8094	B-1		
Q8020	B-1	C8019	C-2	R8029	D-4	R8095	B-1		
Q8022	C-1	C8020	B-1	R8030	C-1	R8096	B-1		
Q8023	C-1	C8021	C-3	R8031	C-1	R8097	D-5		
Q8024	A-4	C8022	B-2	R8032	D-4	R8098	B-1		
Q8025	A-4	C8023	A-4	R8033	D-4	R8099	C-5		
Q8026	A-2	C8024	B-2	R8034	C-3	R8100	B-1		
Q8027	A-3	C8025	A-4	R8035	C-1	R8101	A-1		
Q8028	C-2	C8026	B-4	R8037	C-3	R8102	B-3		
Q8030	B-2	C8027	B-2	R8038	C-3	R8103	A-2		
Q8031	D-4	C8028	B2	R8039	C-3	R8104	B-2		
Q8032	D-5	C8029	B-2	R8041	B-2	R8105	B-3		
Q8033	B-1	C8030	B-2	R8043	C-3	R8106	B-3		
Q8034	B-2	C8031	B-4	R8045	D-3	R8107	D-4		
Q8037	D-4	C8032	B-4	R8046	C-3	R8108	D-5		
Q8038	B-4	C8033	A-1	R8048	B-2	R8109	D-5		
Diode		C8034	B-2	R8050	C-1	R8110	B-2		
D8003	B-1	C8036	B-4	R8051	B-2	**Transformer**			
D8004	B-4	C8037	A-1	R8052	B-1	T8001	C-5		
D8006	C-2	C8038	C-4	R8055	C-2	**Testpoint**			
D8008	B-2	C8039	A-1	R8056	C-1	TP8001	C-5		
D8009	B-4	C8040	A-2	R8057	C-1	TP8002	C-1		
D8010	B-2	C8041	D-4	R8058	C-1	TP8003	A-1		
Connector		C8042	A-1	R8059	B-4	**PL**			
FP8001	D-1	C8043	C-4	R8060	C-3	PL8001	A-3		
FP8002	D-2	C8044	C-4	R8061	C-3				
FP8003	D-2	C8045	C-5	R8062	B-3				
FP8004	B-3	C8046	A-3	R8063	B-2				
Coil		C8047	A-2	R8064	B-3				
L8002	C-2	C8048	B-5	R8065	C-3				
L8003	C-3	C8049	B-4	R8066	B-2				
L8004	C-3	C8050	A-4	R8067	B-3				
L8005	B-1	C8051	A-3	R8068	C-3				
L8006	B-4	C8052	A-3	R8069	B-3				
L8007	A-1	C8053	A-3	R8070	B-3				
L8008	C-4	C8054	B-3	R8071	B-2				

ADDRESS INFORMATION

FRONT C.B.A. VXMW0111

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

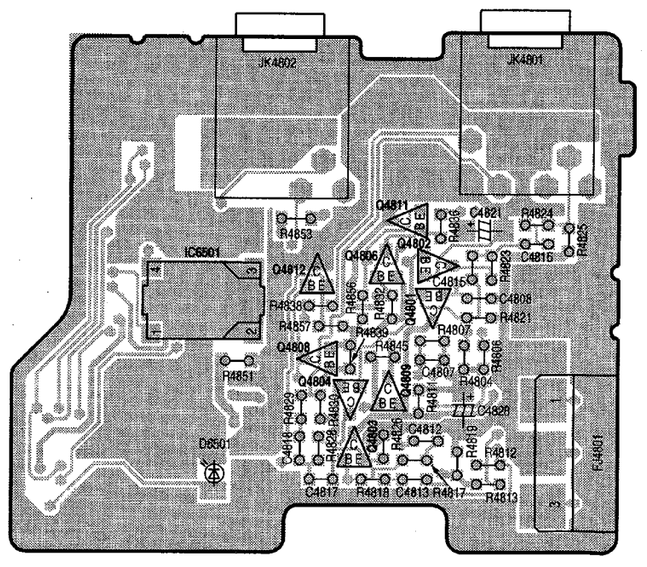
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

FRONT C.B.A.

Integrated Circuit		D6501	A-2	C4813	A-2	R4803	A-4	R4825	B-3	R4851	B-2				
IC4801	A-4	**Connector**		C4814	A-5	R4804	B-3	R4826	A-2	R4853	B-2				
IC6501	B-1	B4801	A-6	C4815	B-3	R4805	B-4	R4828	A-2	R4856	B-2				
Transistor		FJ4801	A-3	C4816	B-3	R4806	B-3	R4829	A-2	R4857	B-2				
Q4801	B-2	FJ4802	B-6	C4817	A-2	R4807	B-2	R4830	A-2	R6501	A-6				
Q4802	B-2	**Jack**		C4818	A-2	R4808	B-4	R4831	B-4	**Filter**					
Q4803	A-2	JK4801	C-3	C4819	B-4	R4809	B-4	R4832	B-4	FL4801	A-5				
Q4804	B-2	JK4802	C-2	C4820	B-4	R4810	B-4	R4833	B-2	FL4802	B-5				
Q4805	B-5	**Capacitor**		C4821	B-3	R4811	A-2	R4834	B-4	FL4803	B-5				
Q4806	B-2	C4801	A-4	C4822	B-5	R4812	A-3	R4835	B-4						
Q4807	B-5	C4802	A-4	C4823	B-5	R4813	A-3	R4836	B-3						
Q4808	B-2	C4803	A-4	C4824	A-5	R4814	A-4	R4837	B-4						
Q4809	B-2	C4804	B-4	C4825	A-4	R4815	B-4	R4838	B-2						
Q4810	B-5	C4805	B-4	C4826	B-4	R4816	A-4	R4839	B-2						
Q4811	B-2	C4806	B-4	C4827	A-5	R4817	A-2	R4840	B-5						
Q4812	B-2	C4807	B-2	C4828	A-3	R4818	A-2	R4841	B-5						
Diode		C4808	B-3	C6501	B-5	R4819	A-3	R4842	A-5						
D4801	A-4	C4809	A-4	C6502	B-5	R4820	A-5	R4843	B-5						
D4802	A-4	C4810	B-4	**Resistor**		R4821	B-3	R4844	A-5						
D4803	C-4	C4811	A-4	R4801	A-4	R4823	B-3	R4845	B-2						
D4804	C-5	C4812	A-2	R4802	A-4	R4824	B-3	R4846	B-4						

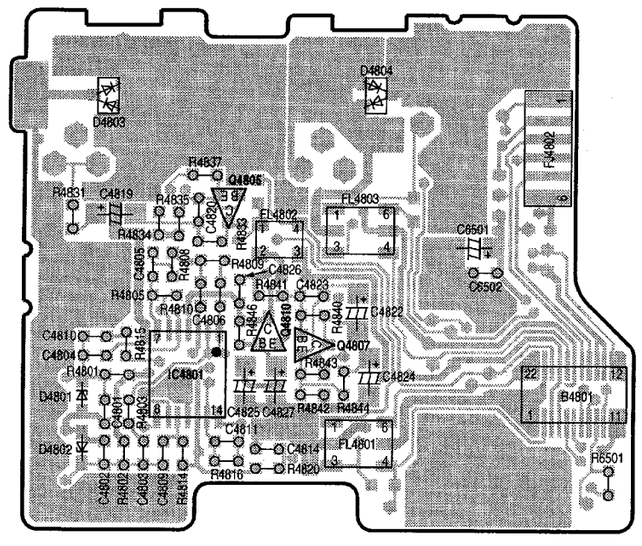
ADDRESS INFORMATION

(COMPONENT SIDE)



(DUAL PATTERNS)

(FOIL SIDE)



(DUAL PATTERNS)

VJBW1652 ①

REAR C.B.A. VEPW1653A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

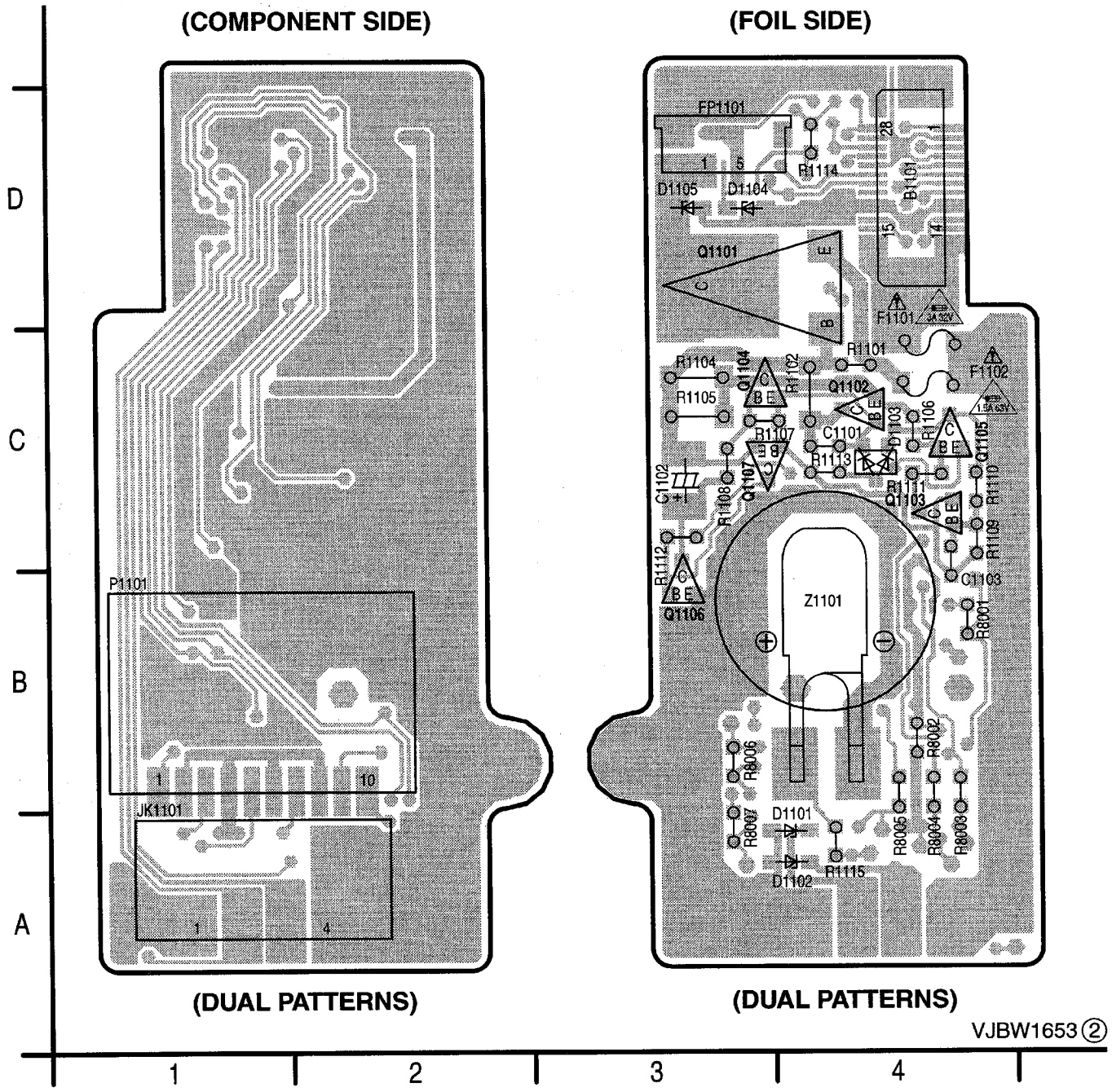
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 3A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 3A 32V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 1.5A 63V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 1.5A 63V

REAR C.B.A.

Transistor		Connector		R1105	C-3	R8004	A-4
Q1101	D-3	B1101	D-4	R1106	C-4	R8005	A-4
Q1102	C-4	FP1101	D-3	R1107	C-3	R8006	B-3
Q1103	C-4	P1101	B-1	R1108	C-3	R8007	A-3
Q1104	C-3	**Jack**		R1109	C-4	**Filter**	
Q1105	C-4	JK1101	A-1	R1110	C-4	F1101	C-4
Q1106	B-3	**Capacitor**		R1111	C-4	F1102	C-4
Q1107	C-3	C1101	C-4	R1112	B-3		
Diode		C1102	C-3	R1113	C-4		
D1101	A-4	C1103	B-4	R1114	D-4		
D1102	A-4	**Resistor**		R1115	A-4		
D1103	C-4	R1101	C-4	R8001	A-4		
D1104	D-3	R1102	C-4	R8002	A-4		
D1105	D-3	R1104	C-3	R8003	A-4		

ADDRESS INFORMATION



EVF BACKLIGHT C.B.A. VEPW1655A1

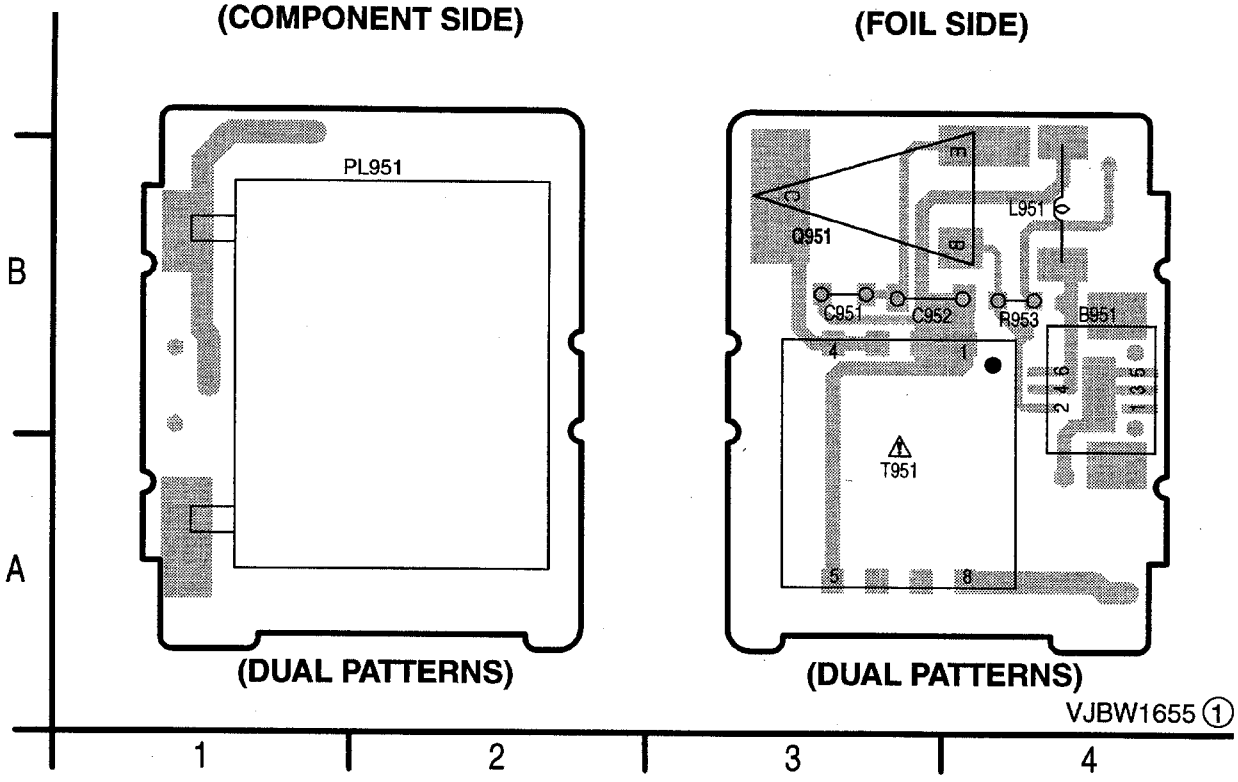
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

EVF B/L C.B.A.	
Transistor	
Q951	B-3
Connector	
B951	B-4
Coil	
L951	B-4
Capacitor	
C951	B-3
C952	B-3
Resistor	
R953	B-4
Transformer	
T951	A-3

ADDRESS INFORMATION



EVF DRIVE C.B.A. VEPW1654A1

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

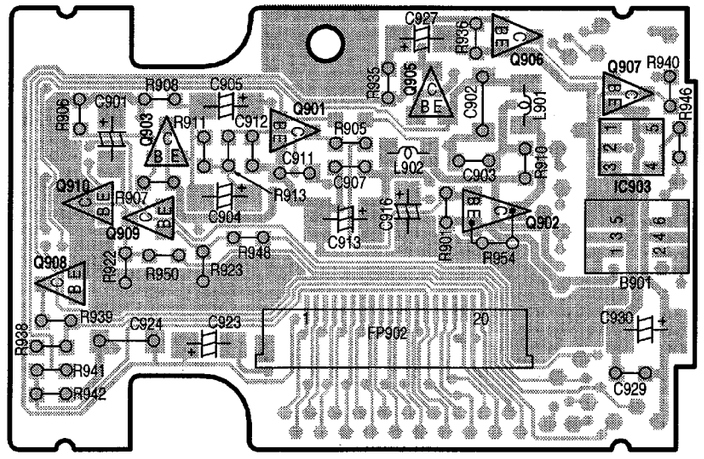
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

EVF DRIVE C.B.A.

Integrated Circuit		D906	B-6	C910	B-6	C929	A-3	R921	B-5	R940	B-3
IC901	B-5	Coil		C911	B-2	C930	A-3	R922	B-1	R941	A-1
IC902	B-6	L901	B-3	C912	B-2	C931	A-4	R923	B-2	R942	A-1
IC903	B-3	L902	B-2	C913	B-2	Resistor		R924	B-4	R943	A-5
Transistor		L903	B-4	C914	B-5	R901	B-2	R925	B-6	R944	A-4
Q901	B-2	Connector		C915	B-6	R902	B-6	R926	A-6	R945	A-4
Q902	B-3	B901	B-3	C916	B-2	R903	B-6	R927	B-6	R948	B-2
Q903	B-1	FP901	B-4	C917	B-4	R904	B-6	R928	A-4	R949	B-6
Q904	B-4	FP902	A-2	C918	B-6	R905	B-2	R929	A-5	R950	B-1
Q905	B-2	Capacitor		C919	B-4	R906	B-1	R930	A-4	R951	B-6
Q906	B-3	C901	B-1	C920	B-4	R907	B-1	R931	A-4	R954	B-3
Q907	B-3	C902	B-3	C921	A-6	R908	B-1	R932	A-5		
Q908	B-1	C903	B-3	C922	A-5	R910	B-3	R933	A-5		
Q909	B-1	C904	B-2	C923	A-2	R911	B-1	R934	A-6		
Q910	B-1	C905	B-2	C924	A-1	R913	B-2	R935	B-2		
Q911	A-4	C906	B-5	C925	A-6	R915	B-5	R936	B-3		
Diode		C907	B-2	C926	A-6	R917	B-4	R937	B-6		
D904	A-6	C908	B-6	C927	B-2	R919	B-5	R938	A-1		
D905	A-6	C909	B-6	C928	B-6	R920	B-5	R939	A-1		

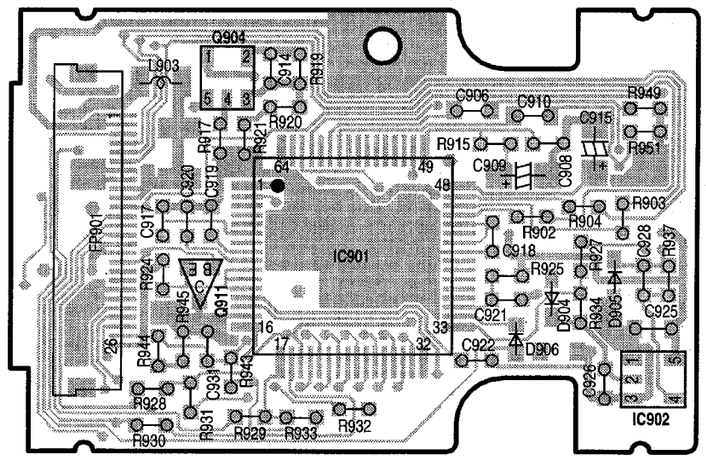
ADDRESS INFORMATION

(COMPONENT SIDE)



(DUAL PATTERNS)

(FOIL SIDE)



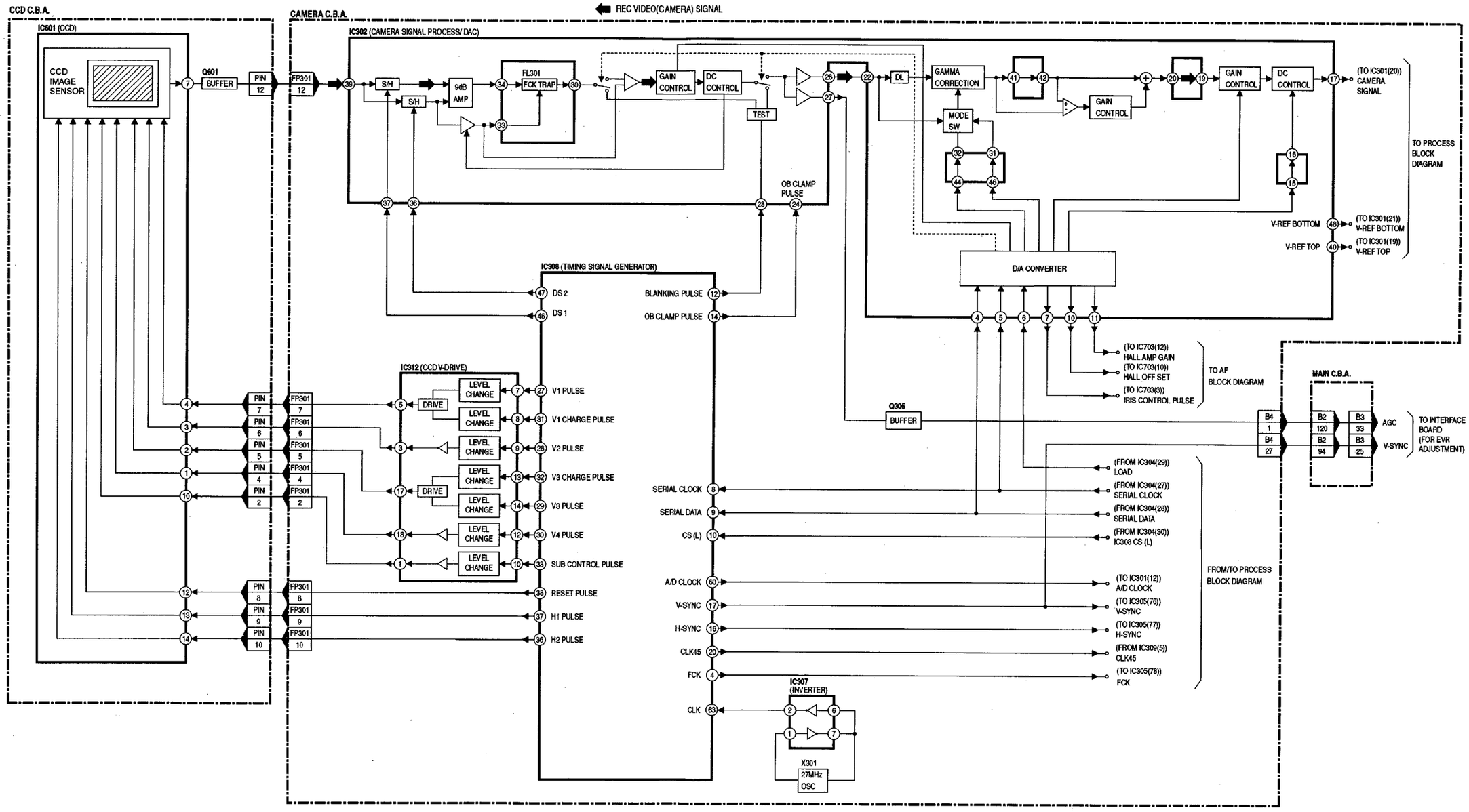
(DUAL PATTERNS)

VJBW1654 ①

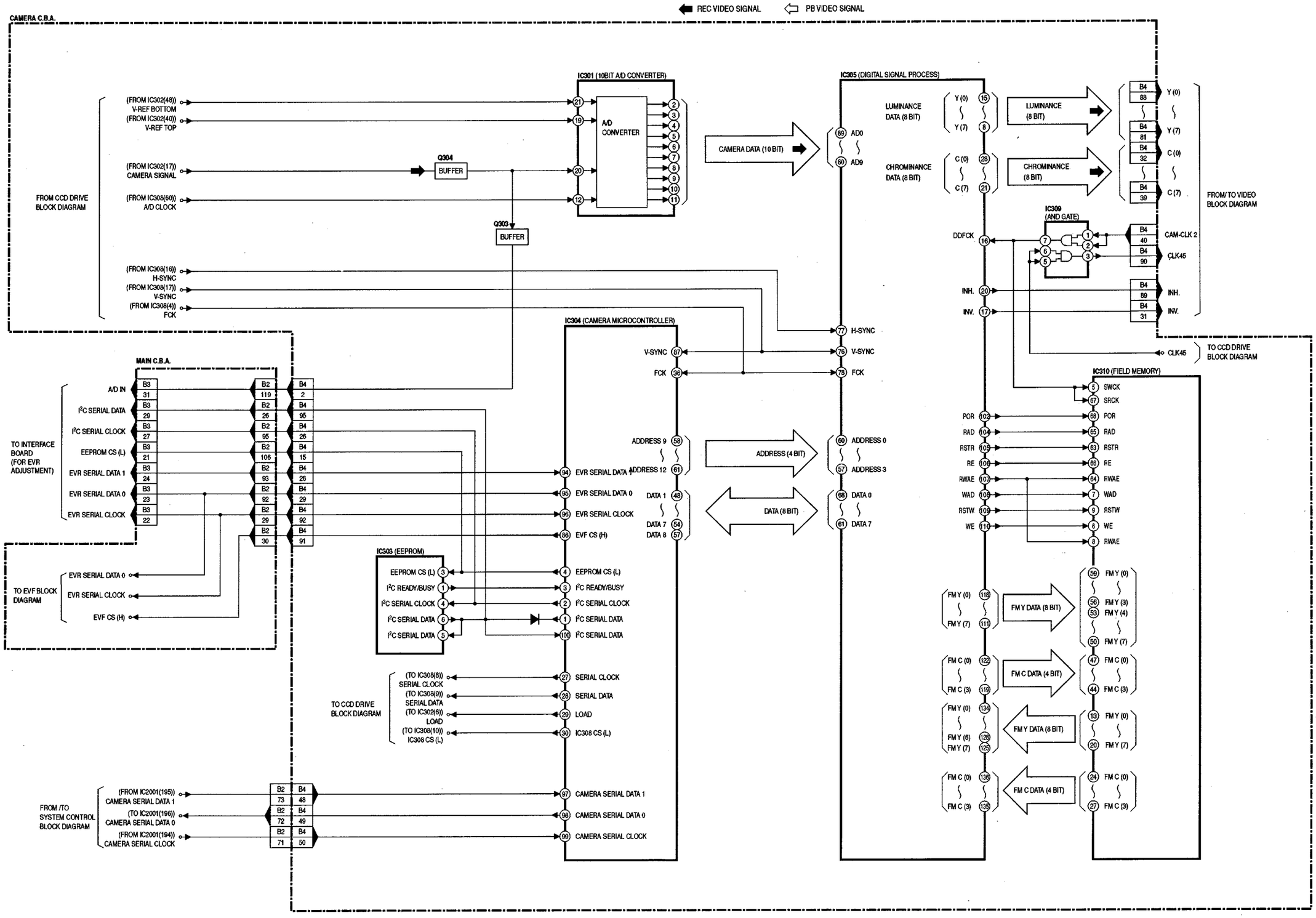
1 2 3 4 5 6

BLOCK DIAGRAMS

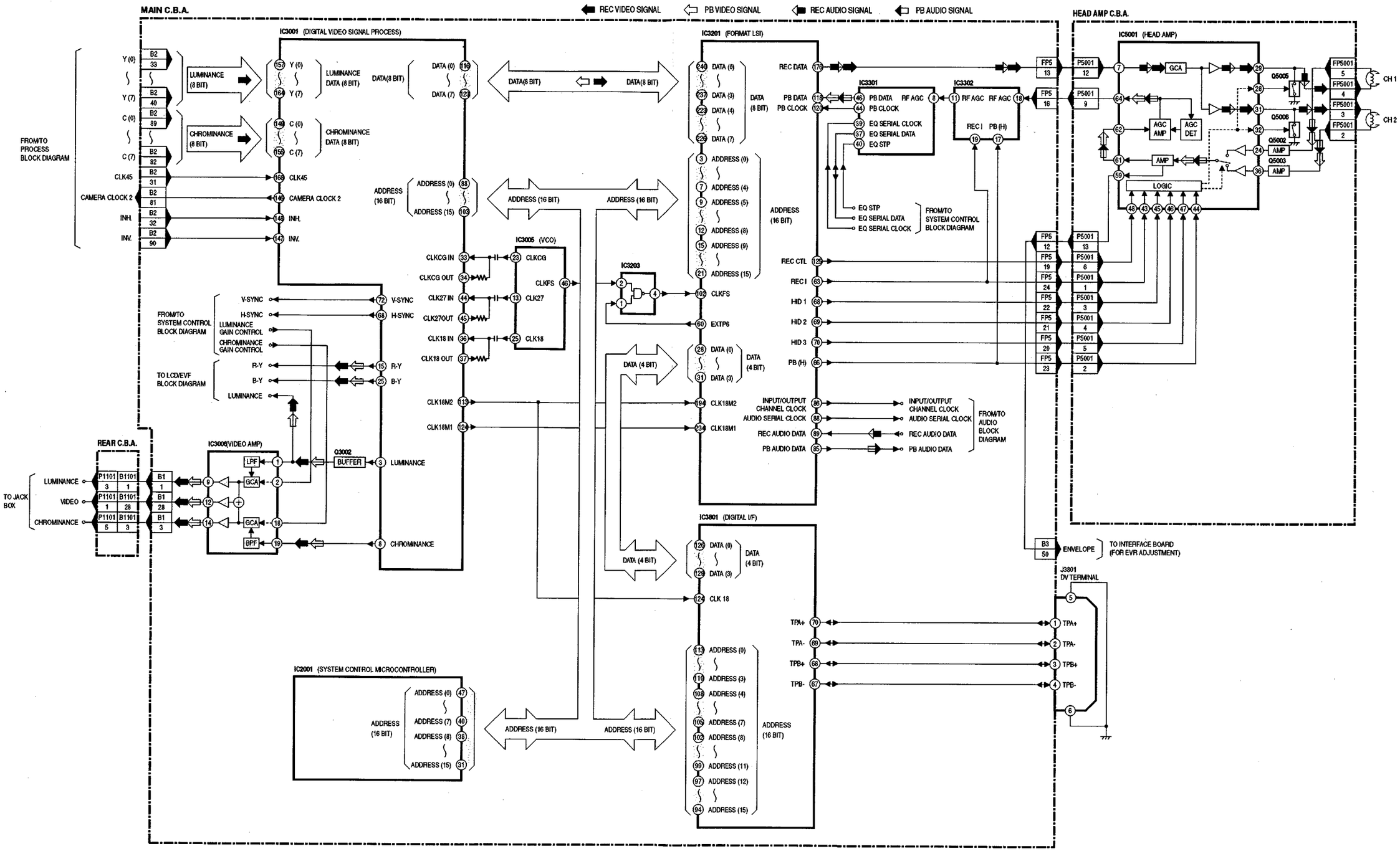
CCD DRIVE BLOCK DIAGRAM



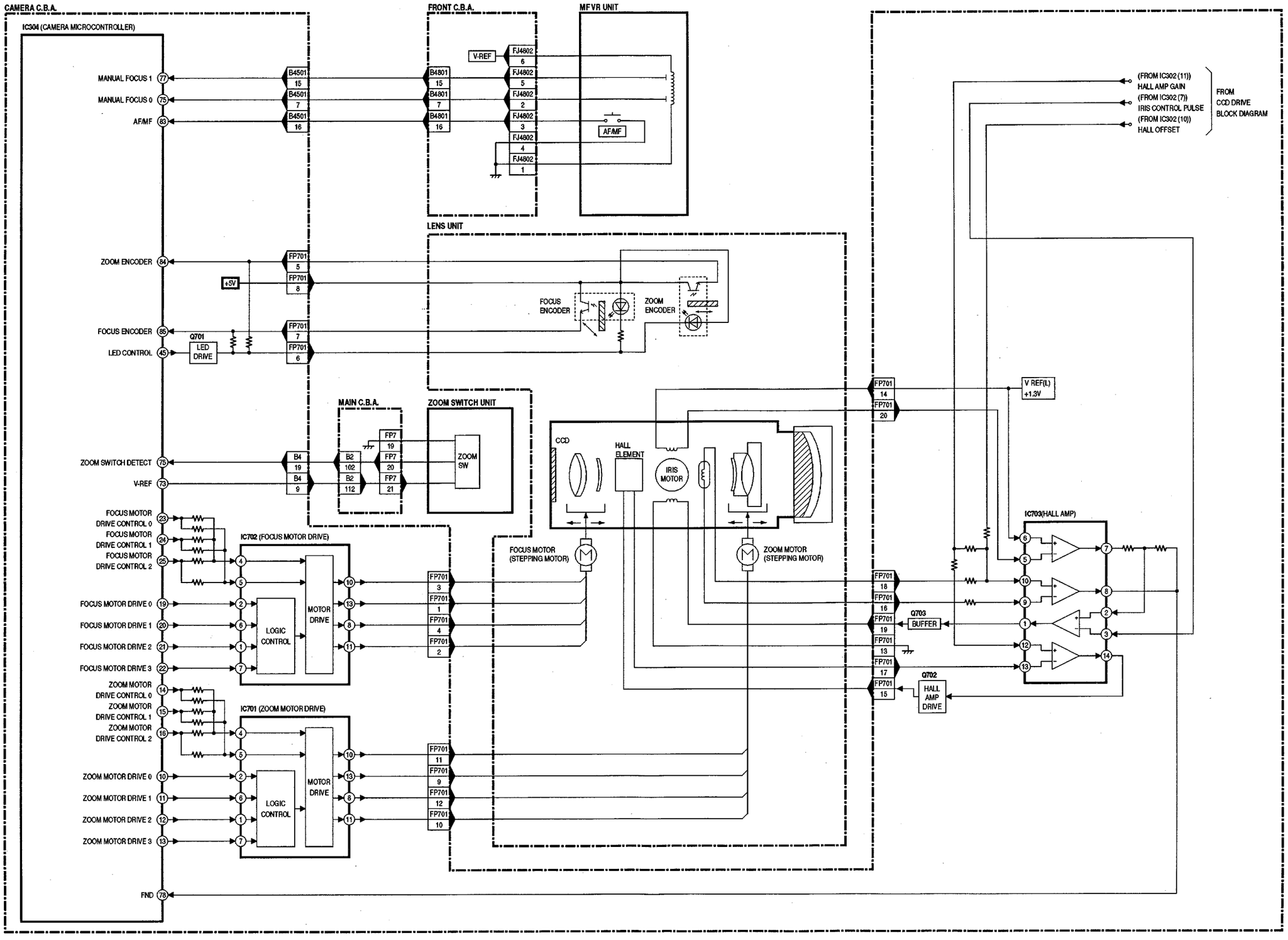
PROCESS BLOCK DIAGRAM



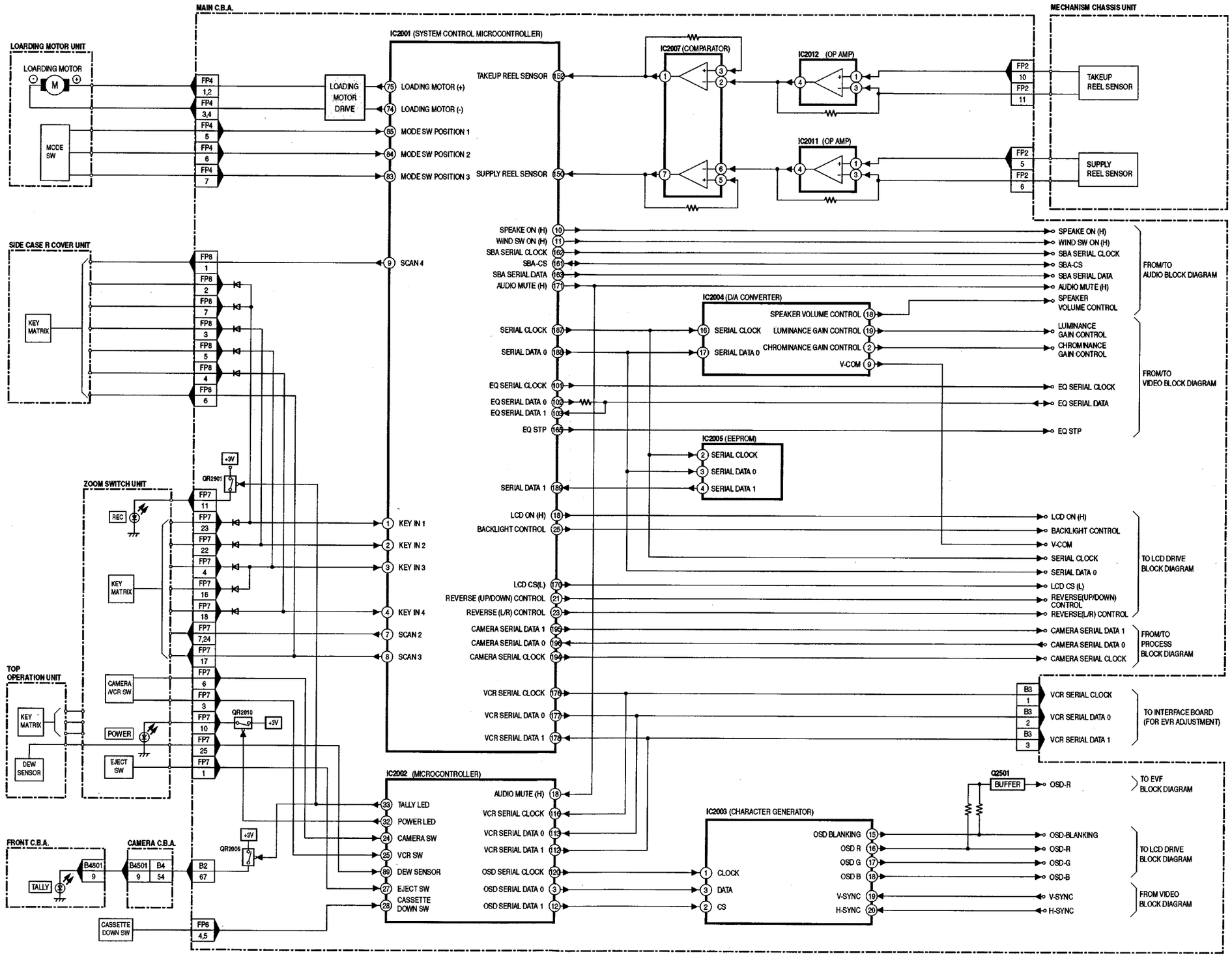
VIDEO BLOCK DIAGRAM



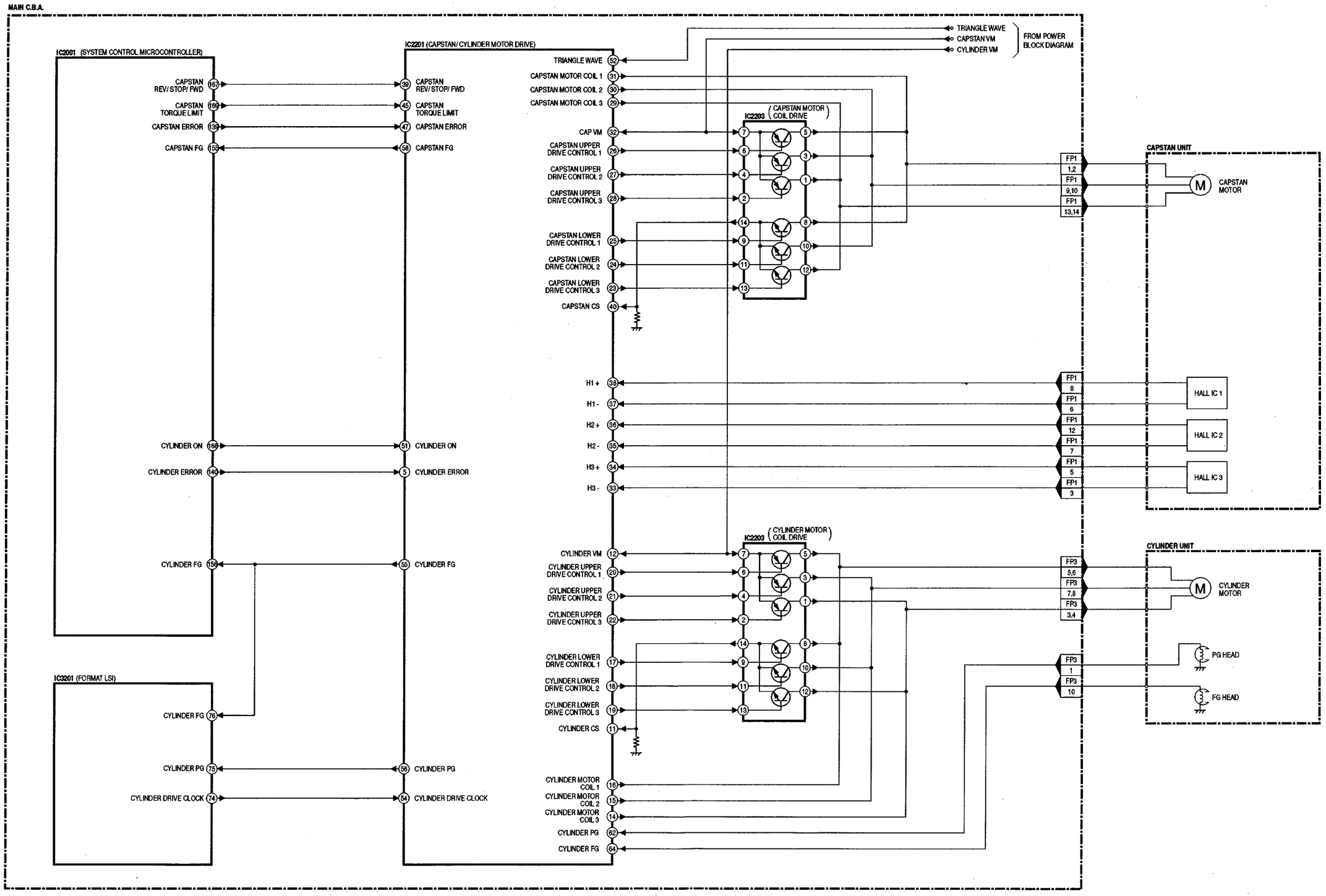
AF BLOCK DIAGRAM



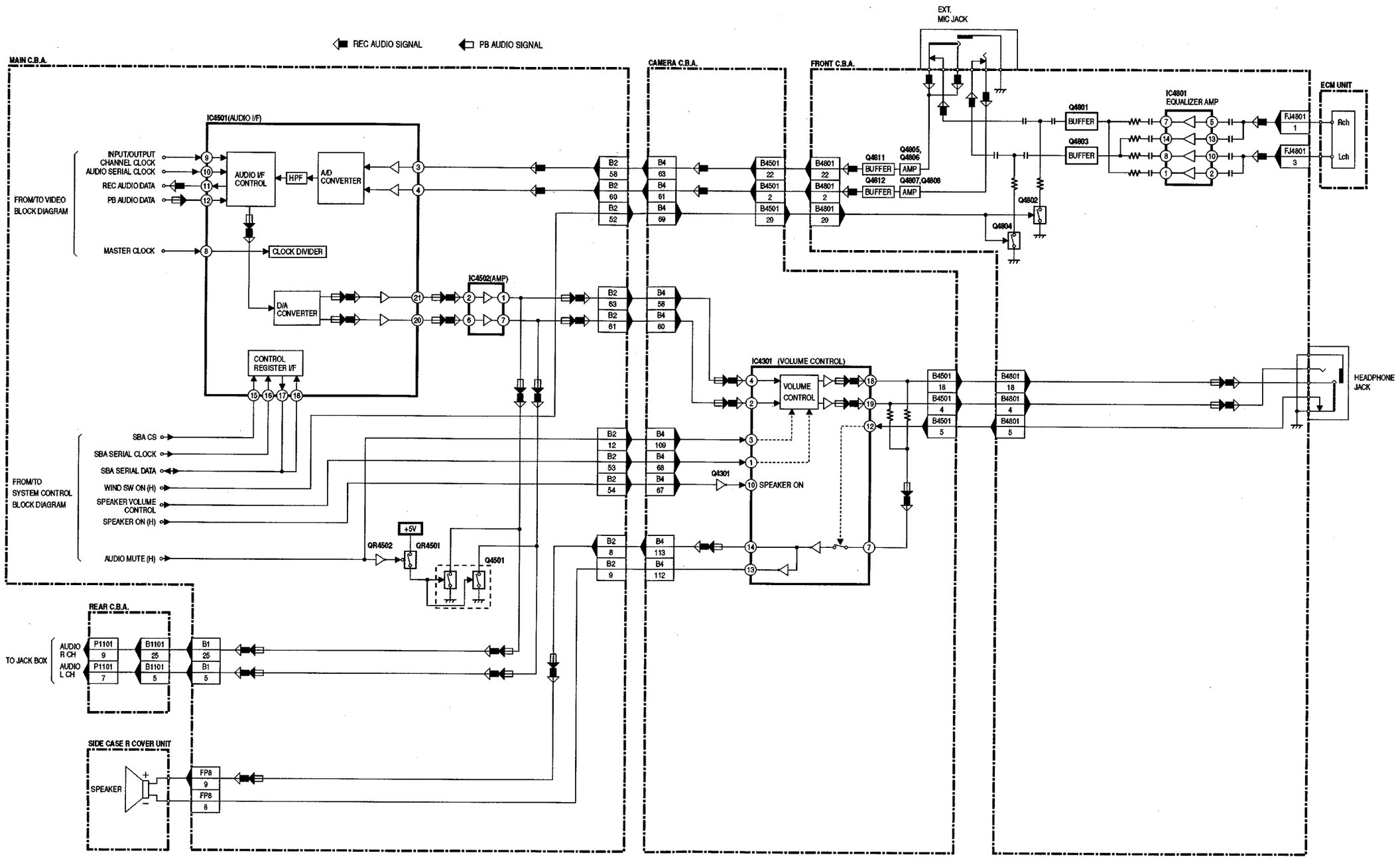
SYSTEM CONTROL BLOCK DIAGRAM



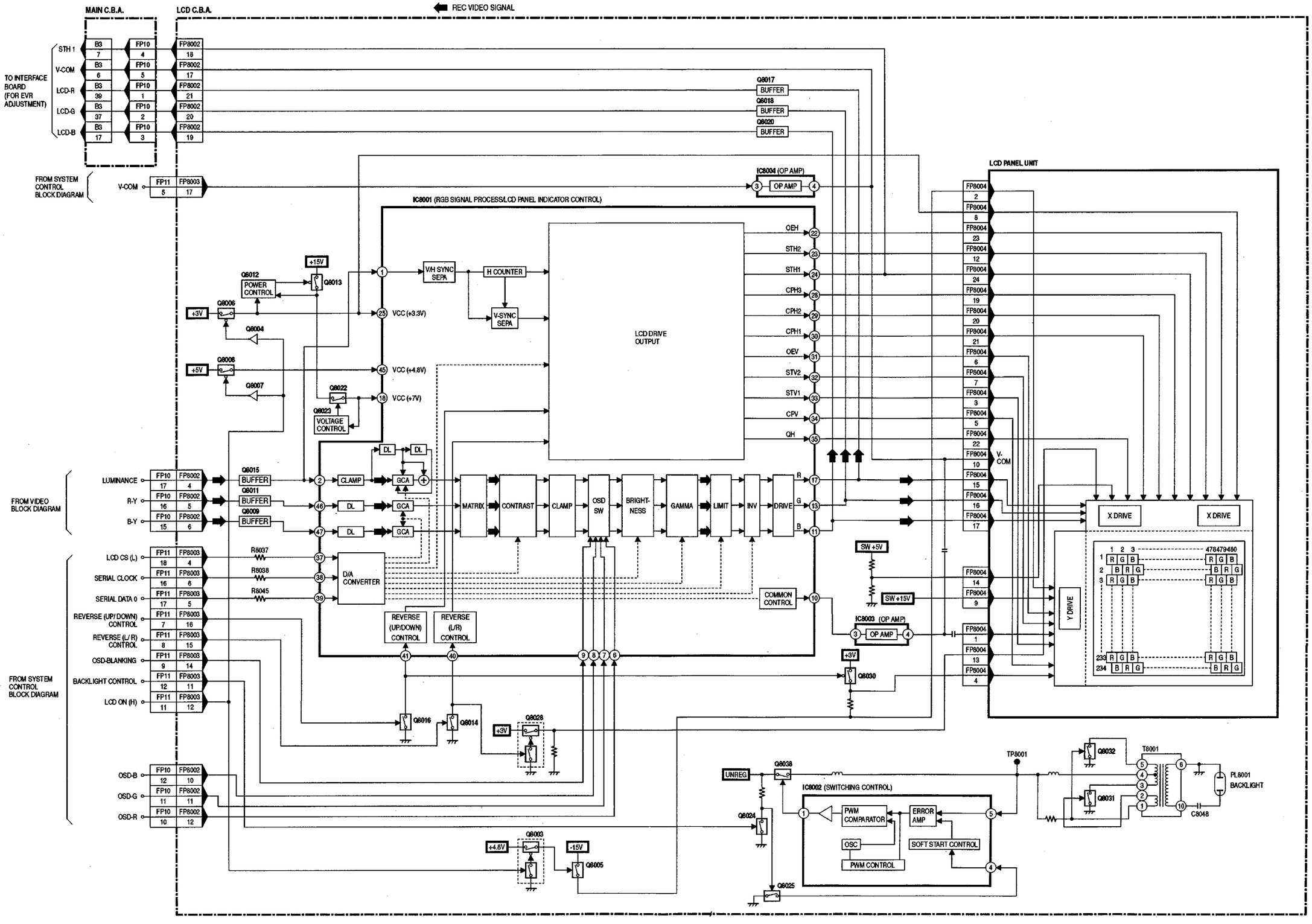
DRIVE BLOCK DIAGRAM



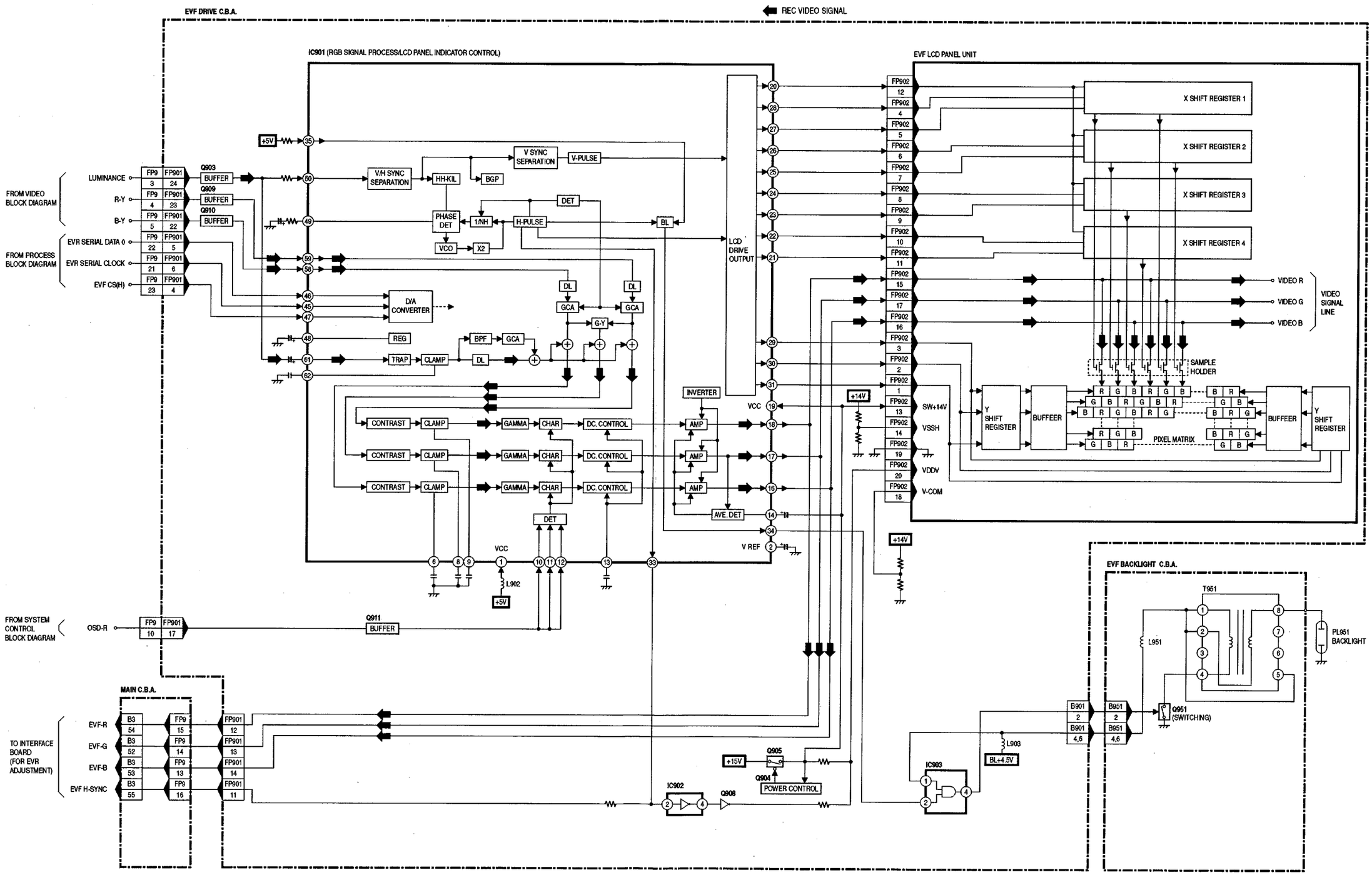
AUDIO BLOCK DIAGRAM



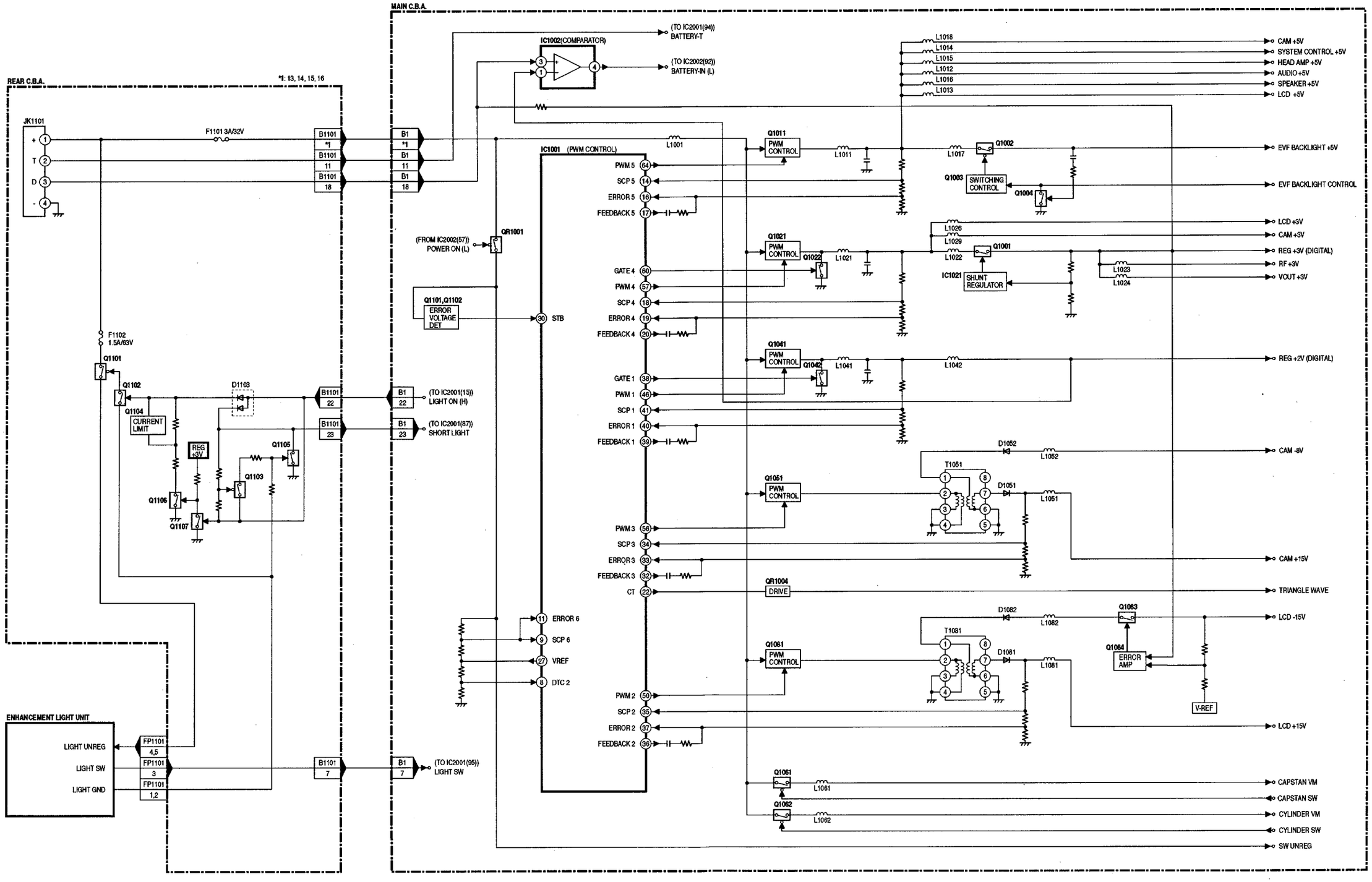
LCD BLOCK DIAGRAM



EVF BLOCK DIAGRAM



POWER SUPPLY BLOCK DIAGRAM

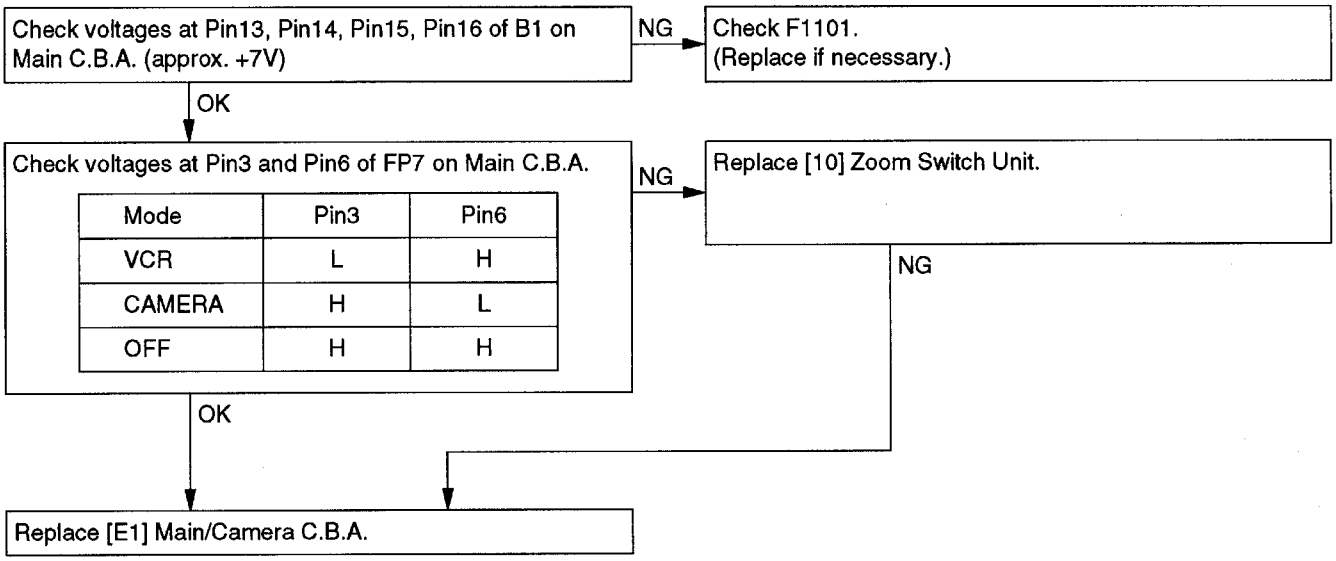


TROUBLESHOOTING HINTS

NOTE: Numbers with [ ] before each parts are the numbers used for them in Exploded Views and Replacement Parts Lists.

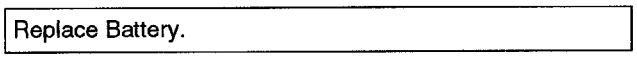
1. No Power

1-1. No power (Battery In and AC Adaptor In)

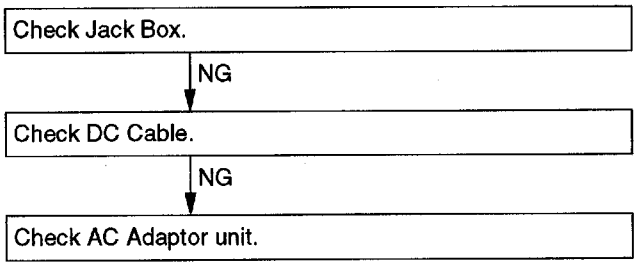


Mode	Pin3	Pin6
VCR	L	H
CAMERA	H	L
OFF	H	H

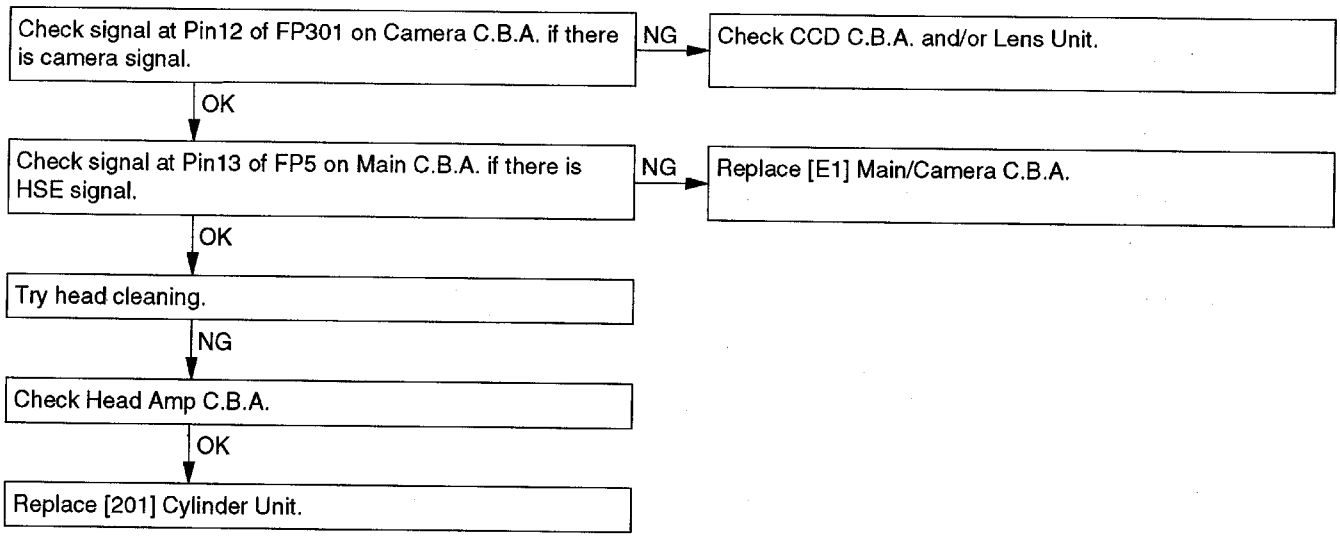
1-2. No power (Battery In only)

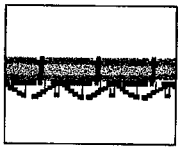


1-3. No power (AC Adaptor In only)

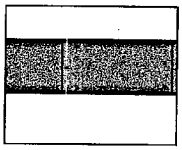


2. No Recording





Pin12 of FP301
on Camera C.B.A.



Pin13 of FP5
on Main C.B.A.

3. No picture in PB Mode

3-1. No picture to Video Out/S Out (Jack Box), LCD Monitor and EVF Monitor

Check signal at Pin16 of FP5 on Main C.B.A. if there is Envelope signal.
→ OK → Replace [E1] Main/Camera C.B.A.

↓ NG

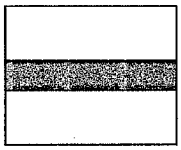
Try head cleaning.

↓ NG

Check Head Amp C.B.A.

↓ OK

Replace [201] Cylinder Unit.



Pin16 of FP5
on Main C.B.A.

3-2. No picture to Video Out/S Out (Jack Box) only

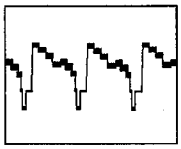
Check signals at Pin1, Pin3 and Pin28 of B1 on Main C.B.A.
*Pin1: Luminance signal
*Pin3: Chrominance signal
*Pin28: Video signal
→ NG → Replace [E1] Main/Camera C.B.A.

↓ OK

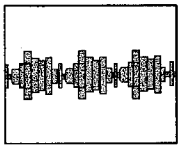
Check signals at Pin1, Pin3 and Pin5 of P1101 on Rear C.B.A.
*Pin1: Video signal
*Pin3: Luminance signal
*Pin5: Chrominance signal
→ NG → Replace [E4] Rear C.B.A.

↓ OK

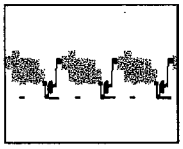
Replace [107] Jack Box.



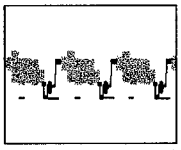
Pin1 of B1
on Main C.B.A.



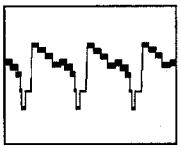
Pin3 of B1
on Main C.B.A.



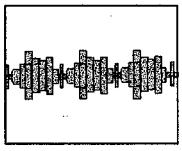
Pin28 of B1
on Main C.B.A.



Pin1 of P1101
on Rear C.B.A.



Pin3 of P1101
on Rear C.B.A.



Pin5 of P1101
on Rear C.B.A.

3-3. No picture to EVF Monitor only

Check signal at Pin2 of B951 on EVF Backlight C.B.A. if there is Backlight pulse.
OK → Check signal at Pin8 of T951 on EVF Backlight C.B.A. if there is 1.9kVp-p Backlight pulse.
OK → Check PL951.

NG → Check L903. (Replace if necessary.)
NG → Check T951, Q951, and surrounding parts.

NG → Check signal at Pin34 of IC901 on EVF Drive C.B.A. if there is Backlight pulse.
NG → Check IC901.

OK → Check IC903 and surrounding parts.
NG → Replace IC903 or surrounding parts.

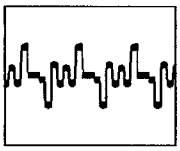
OK → Check voltages at Pin1 and Pin19 of IC901 on EVF Drive C.B.A.
*Pin1: approx. +4.8V
*Pin19: approx. +14V
NG → Check Q905, L902 and surrounding parts.

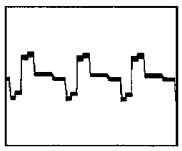
OK → Check signals at Pin58, Pin59 and Pin61 of IC901 on EVF Drive C.B.A.
*Pin58: B-Y signal
*Pin59: R-Y signal
*Pin61: Luminance signal
NG → Check Q903, Q909, Q910 and surrounding parts.

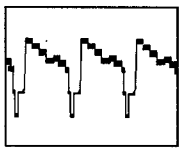
OK → Check signals at Pin45, Pin46 and Pin47 of IC901 on EVF Drive C.B.A.
*Pin45: Serial clock
*Pin46: Serial data 0
*Pin47: EVF CS (H)
NG → Check R902, R903, R904 and surrounding parts.

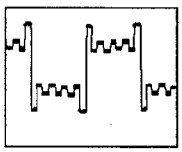
OK → Check signals at Pin16, Pin17 and Pin18 of IC901 on EVF Drive C.B.A.
*Pin16: EVF-B Signal
*Pin17: EVF-G Signal
*Pin18: EVF-R Signal
NG → Check IC901 and surrounding parts.

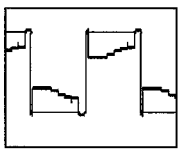
OK → Check EVF LCD panel unit and surrounding parts.

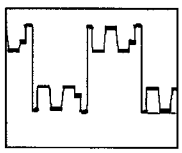

Pin58 of IC901 on EVF Drive C.B.A.


Pin59 of IC901 on EVF Drive C.B.A.


Pin61 of IC901 on EVF Drive C.B.A.


Pin16 of IC901 on EVF Drive C.B.A.


Pin17 of IC901 on EVF Drive C.B.A.


Pin18 of IC901 on EVF Drive C.B.A.

3-4. No picture to LCD Monitor only

Check voltage at TP8001 on LCD C.B.A. if it is correct.
NG → Check IC8002, Q8003, Q8005, Q8024, Q8025, Q8038 and surrounding parts.

OK ↓

Check signal at Pin10 of T8001 on LCD C.B.A. If there is 2.2kVp-p Backlight pulse.
NG → Check T8001, Q8031, Q8032 and surrounding parts.

OK ↓

Check PL8001 and C8048.
(Replace if necessary.)

OK ↓

Check voltages at Pin18, Pin 25 and Pin45 of IC8001 on LCD C.B.A.
*Pin18: approx. +7V
*Pin25: approx. +3.3V
*Pin45: approx. +4.8V
NG → Check Q8004, Q8006, Q8007, Q8008, Q8012, Q8013, Q8022, Q8023 and surrounding parts.

OK ↓

Check signals at Pin2, Pin46 and Pin47 of IC8001 on LCD C.B.A.
*Pin2: Luminance signal
*Pin46: R-Y signal
*Pin47: B-Y signal
NG → Check Q8009, Q8011, Q8015 and surrounding parts.

OK ↓

Check signals at Pin37, Pin38 and Pin39 of IC8001 on LCD C.B.A.
*Pin37: LCD CS (L)
*Pin38: Serial clock
*Pin39: Serial data 0
NG → Check R8037, R8038, R8045 and surrounding parts.

OK ↓

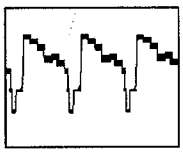
Check signals at Pin11, Pin13 and Pin17 of IC8001 on LCD C.B.A.
*Pin11: LCD-B Signal
*Pin13: LCD-G Signal
*Pin17: LCD-R Signal
NG → Check IC8001 and surrounding parts.

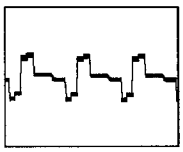
OK ↓

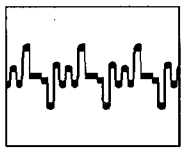
Check signals at Pin1 and Pin10 of FP8004 on LCD C.B.A.
*Pin1: VGL Signal
*Pin10: V-COM Signal
NG → Check IC8003, IC8004 and surrounding parts.

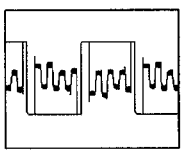
OK ↓

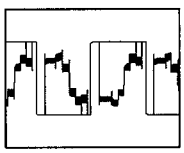
Check LCD Panel Unit and surrounding parts.

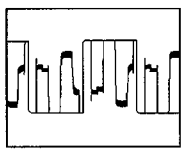

Pin2 of IC8001 on LCD C.B.A.

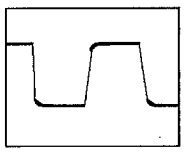

Pin46 of IC8001 on LCD C.B.A.

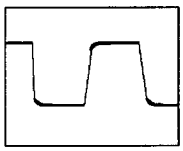

Pin47 of IC8001 on LCD C.B.A.


Pin11 of IC8001 on LCD C.B.A.


Pin13 of IC8001 on LCD C.B.A.


Pin17 of IC8001 on LCD C.B.A.


Pin1 of FP8004 on LCD C.B.A.


Pin10 of FP8004 on LCD C.B.A.

4. No Recording Audio

Check signal at Pin1, Pin7, Pin8 and Pin14 of IC4801 on Front C.B.A. if there is audio signal.

NG → Check IC4801, ECM unit and surrounding parts.

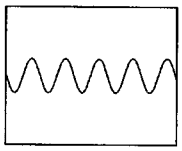
OK ↓

Check signal at Pin2 and Pin22 of B4501 on Camera C.B.A. if there is audio signal.

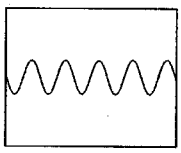
NG → Check Q4801, Q4802 Q4803, Q4804, Q4805, Q4806, Q4807, Q4808, Q4811, Q4812 and surrounding parts.

OK ↓

Replace [E1] Main/Camera C.B.A.



Pin1, Pin7, Pin8 and Pin14 of IC4801 on Front C.B.A.



Pin2 and Pin22 of B4501 on Camera C.B.A.

5. No Audio Output in PB Mode

5-1. No audio output to Audio out (Jack Box) and Speaker

Check if the picture is displayed to LCD monitor. → OK → Replace [E1] Main/Camera C.B.A.

NG

Try head cleaning.

NG

Check Head Amp C.B.A.

NG

Replace [201] Cylinder Unit.

5-2. No audio output to Audio out (Jack Box) only

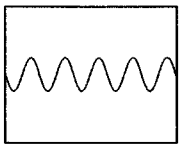
Check signals at Pin5 and Pin25 of B1 on Main C.B.A. if there is audio signal. → NG → Replace [E1] Main/Camera C.B.A.

OK

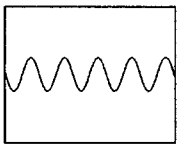
Check signals at Pin7 and Pin9 of P1101 on Rear C.B.A. if there is audio signal. → NG → Replace [E4] Rear C.B.A.

OK

Replace [107] Jack Box.



Pin5 and Pin25 of B1 on Main C.B.A.



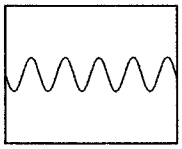
Pin7 and Pin9 of P1101 on Rear C.B.A.

5-3. No audio output to Speaker only

Check signals at Pin8 and Pin9 of FP8 on Main C.B.A. if there is audio signal. → NG → Replace [E1] Main/Camera C.B.A.

OK

Replace [51] Side Case R Cover Unit (built in Speaker).



Pin8 and Pin9 of FP8 on Main C.B.A.

6. Auto Focus does not work

Replace [E1] Main/Camera C.B.A. and/or [21] Lens Unit.

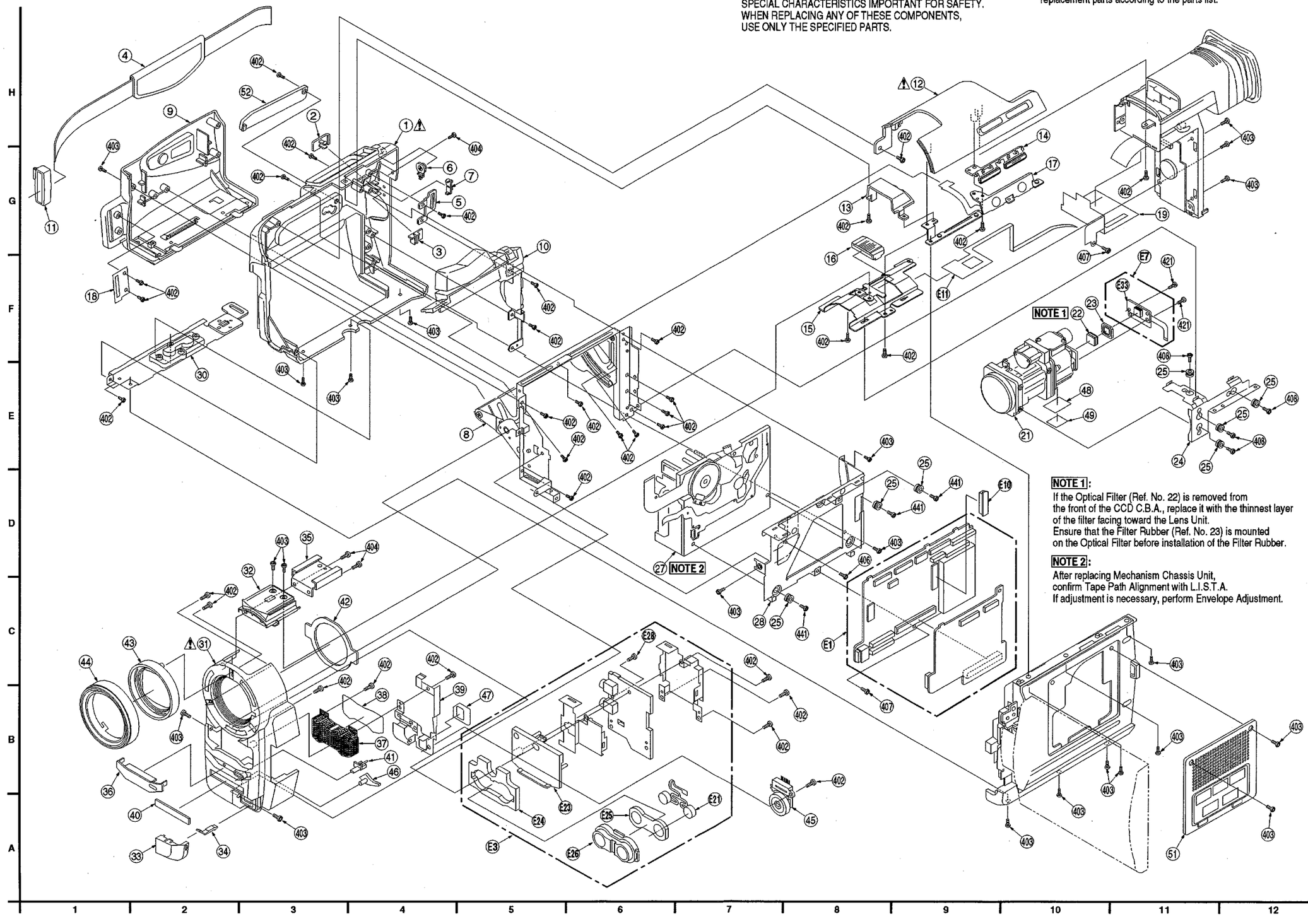
EXPLODED VIEWS

❶ CAMERA AND FRAME SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

Note: Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.



NOTE 1:

If the Optical Filter (Ref. No. 22) is removed from the front of the CCD C.B.A., replace it with the thinnest layer of the filter facing toward the Lens Unit.
Ensure that the Filter Rubber (Ref. No. 23) is mounted on the Optical Filter before installation of the Filter Rubber.

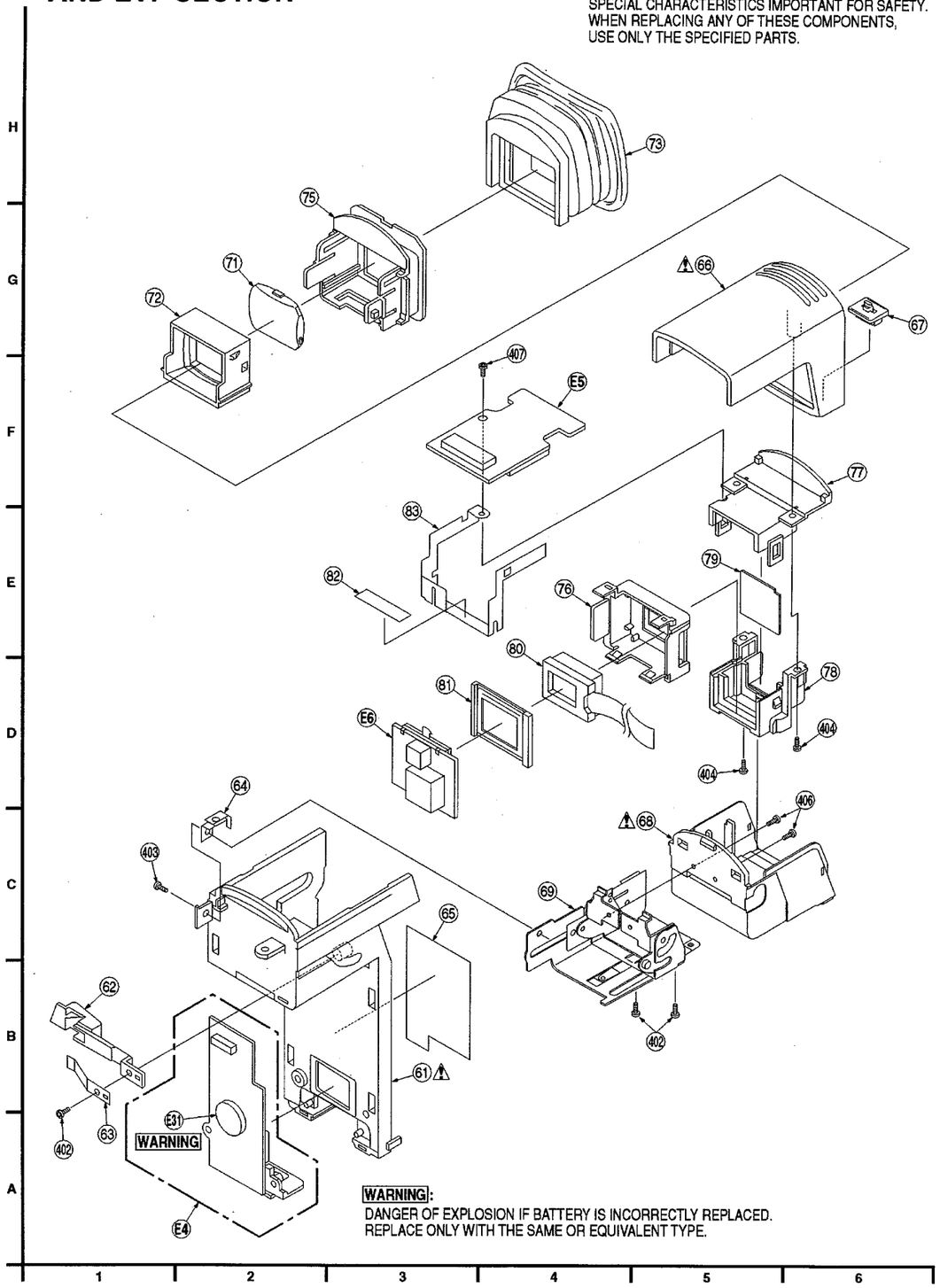
NOTE 2:

After replacing Mechanism Chassis Unit, confirm Tape Path Alignment with L.I.S.T.A.
If adjustment is necessary, perform Envelope Adjustment.

❷ BATTERY CASE AND EVF SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



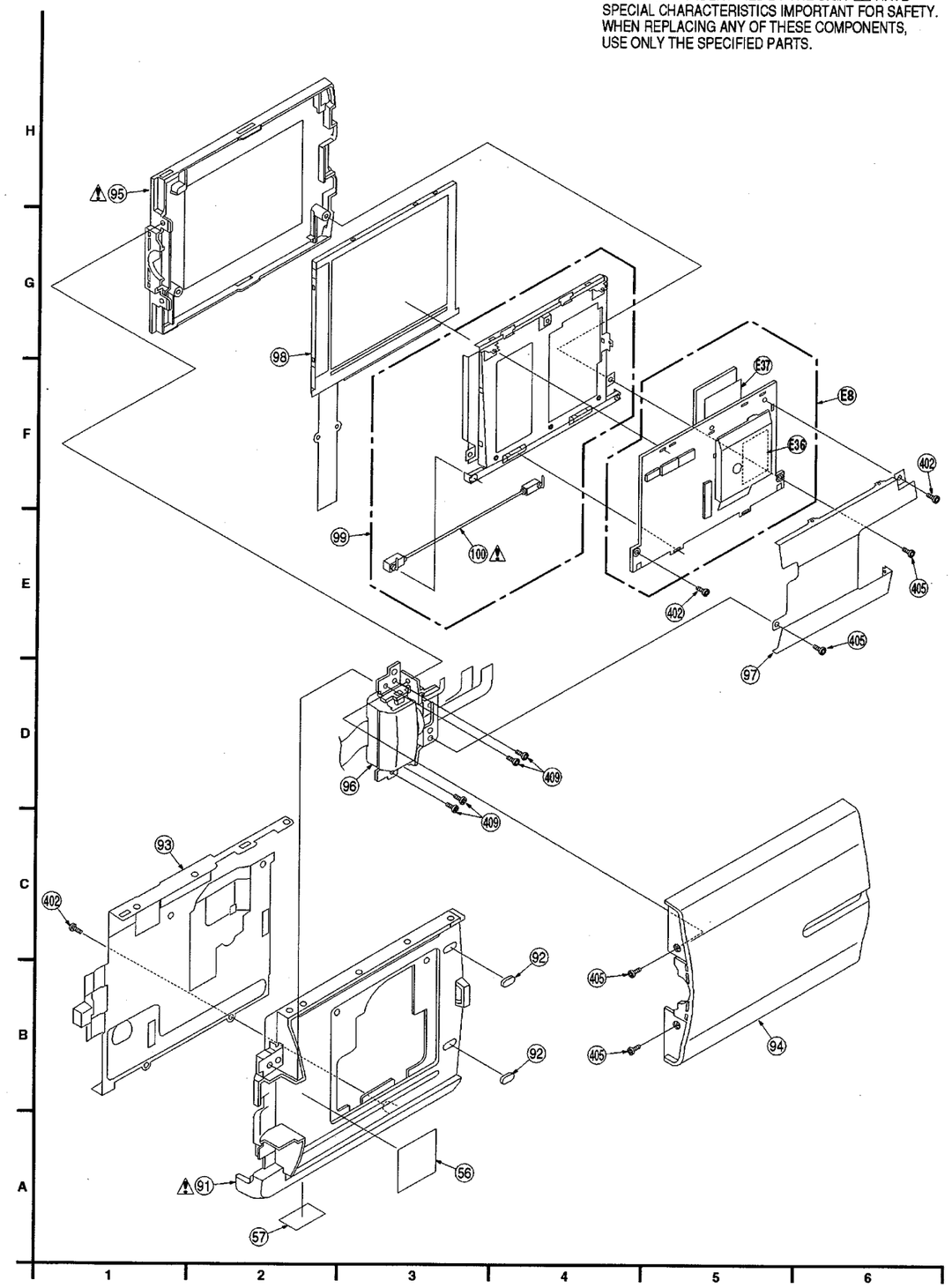
WARNING:

DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

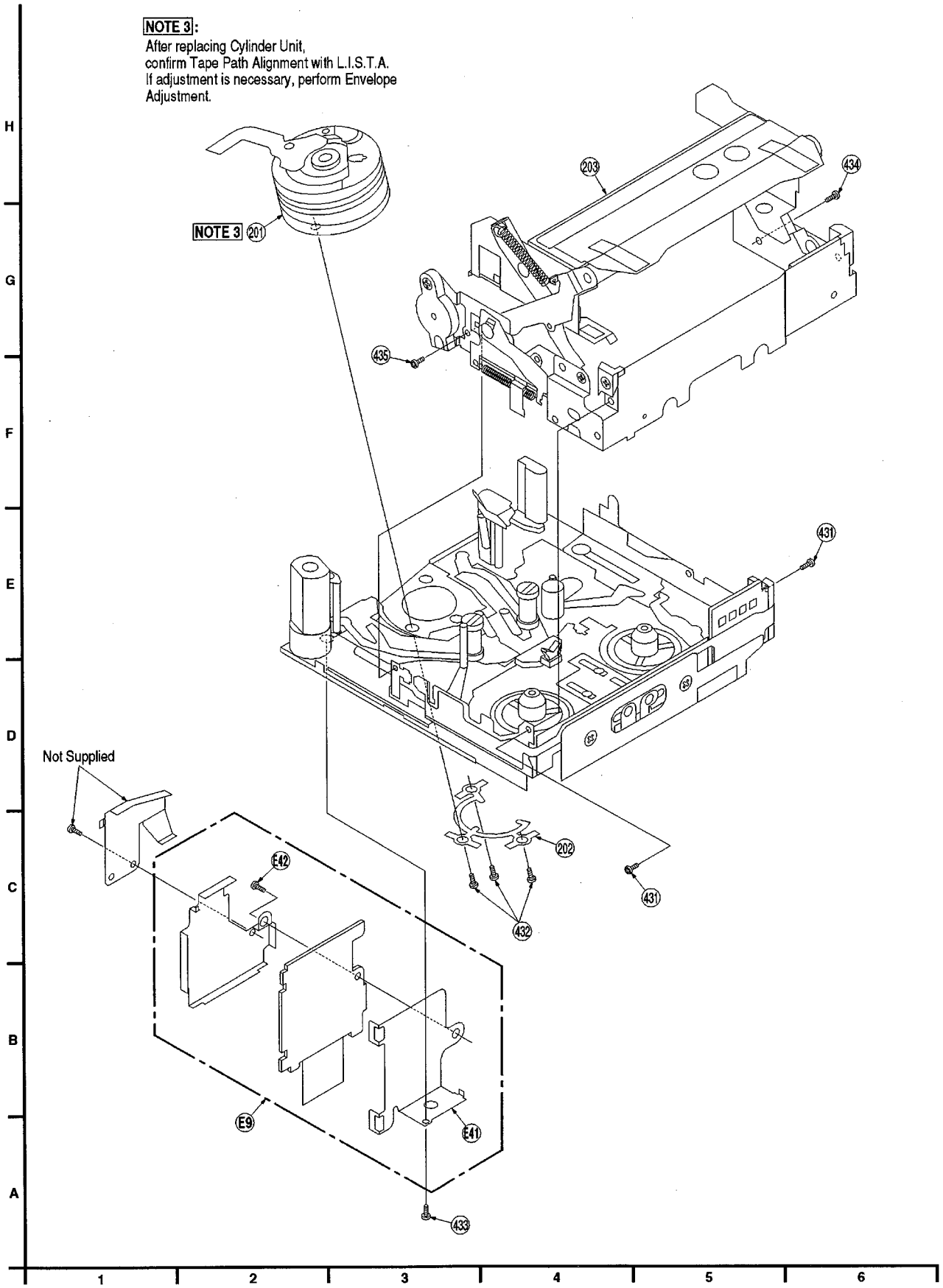
❸ LCD SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



❹ MECHANISM CHASSIS SECTION



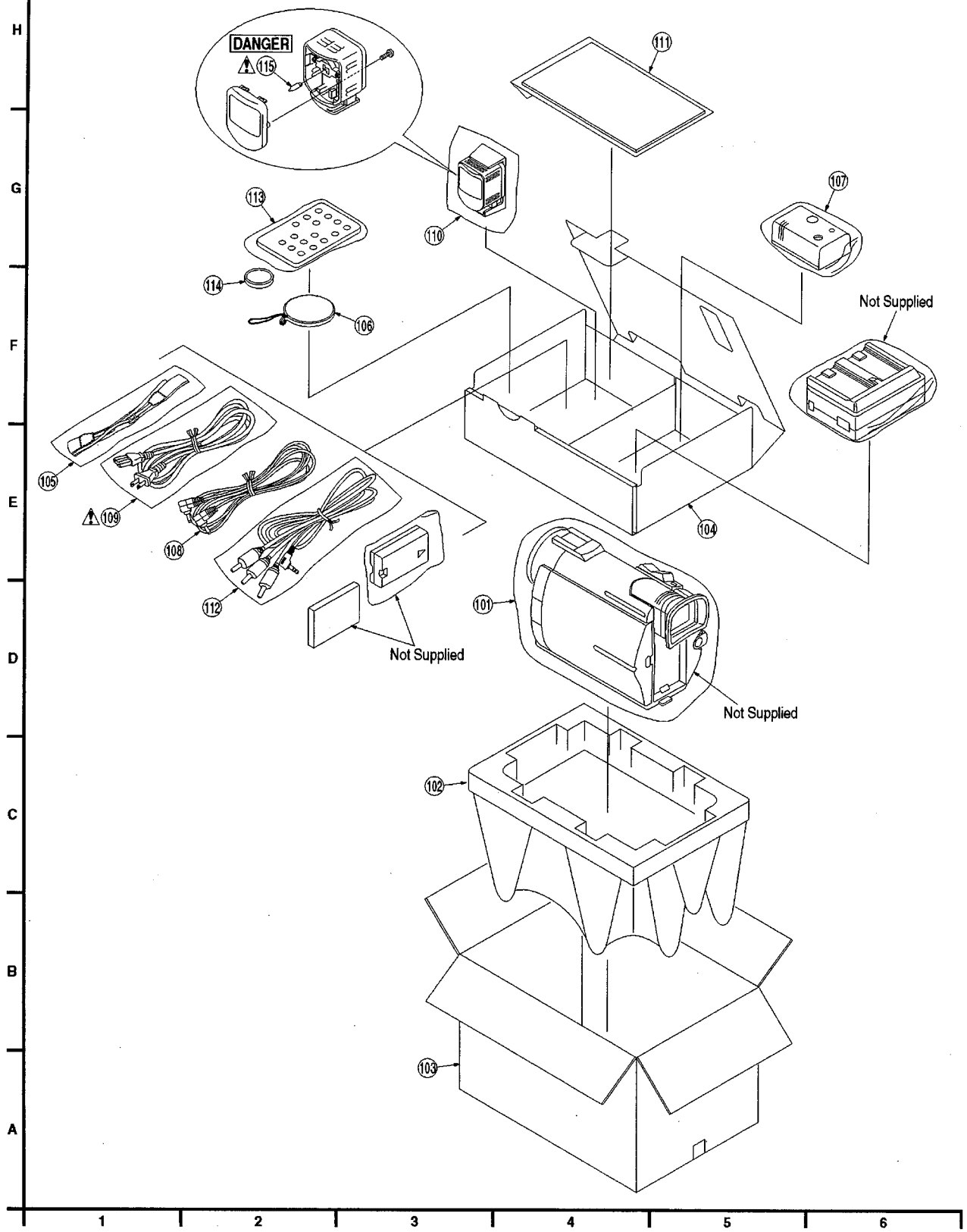
❺ PACKING PARTS AND ACCESSORIES SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

DANGER:

To Prevent possible burn hazard, disconnect this unit and allow lamp to cool before replacing.
Replace only with VLLW0023 lamp, to reduce the risk of fire.



REPLACEMENT PARTS LISTS

BEFORE REPLACING PARTS, READ THE FOLLOWING:

REPLACEMENT NOTES

General Notes

1. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.
2. **IMPORTANT SAFETY NOTICE**
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.
3. SPECIAL NOTE
   All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.
4. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.
6. Parts with mark "VED" in the Remarks column are supplied from VED. Others are supplied from MKE.

Mechanical Replacement Notes

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.
2. Mechanism Chassis Unit (Ref. No. 27) and Cylinder Unit (Ref. No. 201) replacement note:
   After replacing Mechanism Chassis Unit or Cylinder Unit, confirm Tape Path Alignment with L.I.S.T.A.
   If adjustment is necessary, perform Envelope Adjustment.
3. Lamp (Ref. No. 115) replacement note:
   DANGER: To Prevent possible burn hazard, disconnect this unit and allow lamp to cool before replacing.
   Replace only with VLLW0023 lamp, to reduce the risk of fire.

Electrical Replacement Notes

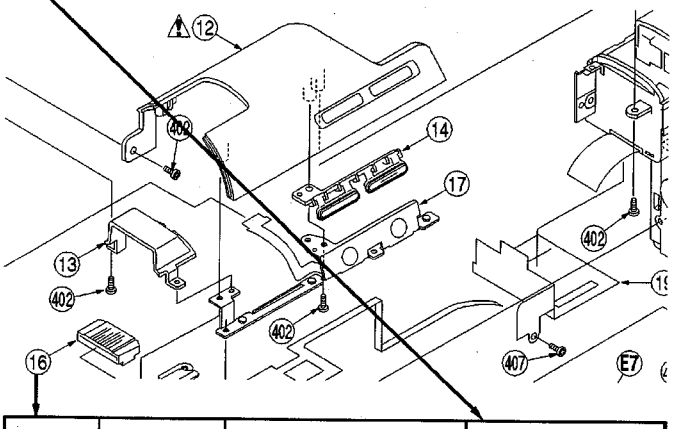
1. Item numbers with capital letter E (Example: E1, E2,...) in the Ref. No. column are shown in the exploded views. The E item numbers are also printed on the same page at the top of the column.
2. The parts with "■" mark are supplied individually or as a unit. The parts with "□" mark are supplied as a unit. (individual parts are not supplied.)
3. Unless otherwise specified;
   All resistors are in ohms, 1/4W, +/-5%, carbon,
   K = 1,000 ohm, M = 1,000 kohm.
   All capacitors are in microfarads, P = micromicrofarad, +/-10%.
   All coils are in microhenries, M = 1,000 microhenry, +/-10%.
4. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
   NR: Non Repairable Board Ass'y
   MGF CHIP: Metal Glaze Film Chip
   C CHIP: Ceramic Chip
   COMPLX CMP: Complex Component
   W FLMPRF: Wirewound Flameproof
   C.B.A.: Circuit Board Assembly
   P.C.B.: Printed Circuit Board
   E.S.D.: Electrostatically Sensitive Devices
5. SERVICE OF CHIP PARTS
   When servicing chip parts, please use a soldering iron of less than 30 watts. Refer to "IC, TRANSISTOR AND CHIP PART INFORMATION" page.
6. The parts with "●" are 0 ohm resistor. When replacing, a wire can be substituted for a 0 ohm resistor.
7. Main/Camera C.B.A. (Ref. No. E1) replacement note:
   Main/Camera C.B.A. consists of Main and Camera C.B.A.s. When servicing, replace both C.B.A.s at the same time.
   When replacing the Main/Camera C.B.A., be sure to write the data to EEPROM (IC2005) on Main C.B.A. and EEPROM (IC303) on Camera C.B.A.
8. Battery (Ref. No. E31) replacement note:
   WARNING: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

MECHANICAL REPLACEMENT PARTS LIST

<The complete Exploded Views are shown in this manual.>

EXPLODED VIEWS

❶ CAMERA AND FRAME SECTION



Ref. No.	Part No.	Part Name	Remarks
		MECHANISM PARTS ON CHASSIS	
			(Section No.)
1	VKMW1786	SIDE CASE L,ABS RESIN	⚠ 1
2	VGTW0598	BATTERY EJECT KNOB	1
3	VMDW0501	BATTERY LOCK PIECE	1
4	VFBW0084	HAND STRAP,POLYPROPYLENE	1
5	VMAW0738	STRAP ANGLE A	1
6	VGUW0188	MENU BUTTON	1
7	VGLW0087	POWER PANEL LIGHT	1
8	VXAW0196A	CASSETTE ANGLE UNIT	1
9	VYKW3109C	CASSETTE COVER UNIT	1
10	VEQW0285	ZOOM SWITCH UNIT	1
11	VGQW0075	LENS CAP HOLDER	1
12	VKMW1779	TOP CASE,ABS RESIN	⚠ 1
13	VKMW1746	LIGHT SHOE CASE,ABS RESIN	1
14	VGUW0187	TOP OPERATION KNOB	1
15	VMAW0715	TOP ANGLE	1
16	VJSW0036	LIGHT TERMINAL	1
17	VEQW0286	TOP OPERATION UNIT	1
18	VMAW0755	STRAP ANGLE C	1
19	VMZW0671	CCD BARRIER	1
21	VXNW0016	LENS UNIT	1
22	VFLW0449	FILTER	1
23	VMGW0213	FILTER RUBBER	1
24	VMAW0714	LENS ANGLE	1
25	VMG1107	MECHANISM DAMPER RUBBER	1
27	VXYW0198	MECHANISM CHASSIS UNIT	1
28	VMAW0705	MECHANISM FRAME	1
30	VXAW0197	MAIN FRAME UNIT	1
31	VKMW1778	FRONT CASE,ABS RESIN	⚠ 1
32	VKMW1780	LIGHT SHOE COVER	1
33	VKMW1781	TERMINAL COVER	1
34	VKCW0003	HINGE	1
35	VMAW0716	SHOE	1
36	VGLW0086	INFRARED PANEL	1
37	VKNW0082	MICROPHONE NET	1
38	VGQW0073	MICROPHONE SHEET,NYLON+RAYON	1
39	VSCW0936	GND PLATE,STEEL	1
40	VGBW0098	BADGE,NI	1
41	VGLW0085	TALLY PANEL	1
42	VMGW0224	LENS INSULATER	1
43	VMDW0508	HOOD SCREW,PLASTIC	1
44	VYKW3111	LENS RING UNIT	1
45	VRVW0030	MANUAL FOCUS VARIABLE RESISTOR	1
		UNIT	
46	VGLW0094	INFRARED PANEL LIGHT	1
47	VMZW0669	SPACER	1
48	VMZW0672	AUDIO/VIDEO SHEET,POLYVINYL	1
		CHRORIDE	
49	VMZW0673	WEIGHT SHEET,STEEL	1

Ref. No.	Part No.	Part Name	Remarks
51	VYFW0009RC	SIDE CASE R COVER UNIT	1
52	VKFW0063	LEFT COVER	1
56	VQLW2021	CAUTION LABEL A	3
57	VQLW2023	CAUTION LABEL B	3
61	VKMW1736	BATTERY CASE,ABS RESIN	⚠ 2
62	VHLW0109	BATTERY EJECT PIECE	2
63	VMCW0020	BATTERY EJECT SPRING	2
64	VSCW0945	ELECTRONIC VIEWFINDER ESD	2
		ANGLE	
65	VQLW2020	BATTERY ATTACHMENT LABEL	2
66	VKMW1788	ELECTRONIC VIEWFINDER CASE A,	⚠ 2
		ABS RESIN	
67	VGTW0600	EYE SIGHT KNOB	2
68	VKMW1742	ELECTRONIC VIEWFINDER CASE B,	⚠ 2
		ABS RESIN	
69	VXAW0198EA	ELECTRONIC VIEWFINDER BASE	2
		ANGLE UNIT	
71	VFLW0450	ELECTRONIC VIEWFINDER LENS	2
72	VMDW0502	LENS HOLDER	2
73	VMGW0221	EYE CAP	2
75	VMDW0503	EYE CAP HOLDER	2
76	VMDW0506	ELECTRONIC VIEWFINDER LCD	2
		HOLDER	
77	VMDW0504	ELECTRONIC VIEWFINDER PROTECT	2
		B	
78	VMDW0505	ELECTRONIC VIEWFINDER PROTECT	2
		A	
79	VDLW0003	POLARIZER	2
80	MCL0512B03	ELECTRONIC VIEWFINDER LCD	2
		PANEL UNIT	
81	VMGW0225	ELECTRONIC VIEWFINDER RUBBER	2
82	VMZW0662	SPACER	2
83	VMAW0741	ELECTRONIC VIEWFINDER FIXING	2
		ANGLE A	
91	VKMW1733	SIDE CASE R,ABS RESIN	⚠ 3
92	VMFW0142	BUFFER CUSHION,POLYURETHANE	3
93	VMAW0742	SHIELD PLATE,STEEL	3
94	VYKW3116	LIQUID CRYSTAL DISPLAY CASE A	3
		UNIT	
95	VKMW1739	LIQUID CRYSTAL DISPLAY CASE B,	⚠ 3
		ABS RESIN	
96	VXAW0190	LIQUID CRYSTAL DISPLAY SHAFT	3
		UNIT	
97	VSCW0940	LIQUID CRYSTAL DISPLAY SHIELD	3
		CASE,STEEL	
98	VXYW0201	LIQUID CRYSTAL DISPLAY PANEL	3
		UNIT	
99	VXYW0202	LEAD LIGHT PANEL UNIT	3
100	VLLW0019	LAMP UNIT	⚠ 3
101	VPFW0052	BAG,POLYETHYLENE	5
102	VPNW0048	CUSHION,PAPER	5
103	VPGW0738	PACKING CASE,PAPER	5
104	VPGW0740	ACCESSORY PACKING CASE,PAPER	5
105	VYCW0214	SHOULDER STRAP,POLYPROPYLENE	5
106	VYFW0008	LENS CAP UNIT	5
107	VSQW0042	JACK BOX	5
108	VJAW0042	DC CABLE W/PLUG	5
109	VJAW0044	AC CABLE W/PLUG	⚠ 5
110	VYKW3130	ENHANCEMENT LIGHT UNIT	5
111	VQFW0734	FAN BAG	5
112	VJAW0043	AUDIO/VIDEO CABLE W/PLUG	5
113	VSQW0044	INFRARED REMOTE CONTROL UNIT	5
114	VSBW0004	BATTERY UNIT	5
115	VLLW0023	LAMP	⚠ 5
201	VEG1450	CYLINDER UNIT	4
202	VMC1443	CYLINDER SPRING	4
203	VXAW0182	CASSETTE UP UNIT	4

Ref. No.	Part No.	Part Name	Remarks
		SCREWS	
402	XQN2+BJ4FXK	SCREW,STEEL	1,2,3
403	XQN2+BF4FXK	SCREW,STEEL	1,2
404	XQN2+BJ5FXK	SCREW,STEEL	1,2
405	XQN2+BF3FXK	SCREW,STEEL	3
406	XQN16+CF25FU	SCREW,STEEL	1,2
407	XQN2+BF4FN	SCREW,STEEL	1,2
408	VHDW0120	SCREW,STEEL	1
409	XQN2+CJ6	SCREW,STEEL	3
421	XQN16+CJ6	SCREW,STEEL	1
431	XQN14+B12FNK	SCREW,STEEL	4
432	VHD1156	SCREW,STEEL	4
433	XQN16+B2	SCREW,STEEL	4
434	XQN14+B2FNK	SCREW,STEEL	4
435	VHDW0126	SCREW,STEEL	4
441	VHD1133	SCREW,STEEL	1
		SERVICE FIXTURE AND TOOLS	
	VFK1217	49% TRANSMISSION TAPE	VED
	VFM3010EHS	COLOR BAR STANDARD TAPE	VED
	VFM3000EHSM	LINEAR ALIGNMENT TAPE	VED
	LSUQ0003	DVC HEAD CLEANING TAPE	
	--------	REEL FG ADJUSTMENT CASSETTE	(NOT SUPPLIED)
	LSUA0014	EXTENSION CABLE 120PIN	
	LSUA0015	EXTENSION CABLE 5PIN	
	LSUA0016	EXTENSION CABLE 10PIN	
	LSUA0017	EXTENSION CABLE 18PIN	
	LSUA0018	EXTENSION CABLE 24PIN	
	LSUA0019	EXTENSION CABLE 8PIN	
	VEQM0285	ZOOM SWITCH UNIT	
	VEQM0286	TOP OPERATION UNIT	
	--------	INTERFACE BOARD FOR ELECTRICAL	(NOT SUPPLIED)
		ADJUSTMENT	
	--------	INTER LINK CABLE	(NOT SUPPLIED)
	--------	CAMERA CONNECTING CABLE	(NOT SUPPLIED)
	VFK1278	POST HEIGHT ADJUSTMENT FIXTURE	VED
	VFK1164TFWC2	WHITE CHART	VED
	VFK1164TFCB2	COLOR BAR CHART	VED
	VFKS002Y	LIGHT BOX AND AC ADAPTOR	(AC ADAPTOR IS
			NOT SUPPLIED)
	VFK1164TCM02	INFINITY LENS	VED
		(WITH FOCUS CHART)	
	VFK1164TAR43	43mm RING	VED
	--------	COLOR CONVERSION FILTER (C10)	(NOT SUPPLIED)
	VFK1164TFCT2	COLOR CONVERSION FILTER (C14)	VED
	--------	MIC READER (AC 100V)	(NOT SUPPLIED)
	--------	SATELLITE BOX (AC 100V)	(NOT SUPPLIED)
	--------	ATF I/F (AC 100V)	(NOT SUPPLIED)
	--------	RS-232C CABLE	(NOT SUPPLIED)
	--------	INTERFACE BOARD FOR L.I.S.T.A.	(NOT SUPPLIED)
	--------	PC-EVR ADJUSTMENT PROGRAM	(NOT SUPPLIED)

NOTE: Parts with mark "VED" in the Remarks column are supplied from VED. Others are supplied from MKE.

ELECTRICAL REPLACEMENT PARTS LIST

(E1, E3, E4, E5, E6, E7, E8, E9, E10)

Ref. No.	Part No.	Part Name	Remarks
		PRINTED CIRCUIT BOARD ASSEMBLY	
E1	VEQW0302	MAIN/CAMERA C.B.A. NR	□ *NOTE
E3	VXMW0111	FRONT C.B.A.	■ RTL
E4	VEPW1653A1	REAR C.B.A.	■ RTL
E5	VEPW1654A1	ELECTRONIC VIEWFINDER DRIVE C.B.A.	■ E.S.D. RTL
E6	VEPW1655A1	ELECTRONIC VIEWFINDER BACKLIGHT C.B.A.	■ RTL
E7	VEQW0284	CCD C.B.A.	■ E.S.D. RTL
E8	VEPW1651A1	LIQUID CRYSTAL DISPLAY C.B.A.	■ RTL
E9	VEQW0289	HEAD AMP C.B.A.	■ RTL
E10	VEPW1665A1	SHORT JIG C.B.A. NR	□
		FRONT C.B.A.	■
		INTEGRATED CIRCUITS	
IC4801	NJM2112V-TE1	IC, LINEAR EQUALIZER AMP	
IC6501	VEK8283	INFRARED RECEIVER	
		TRANSISTORS	
Q4801	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q4802	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q4803	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q4804	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q4805	2SC3929	CHIP	
	OR 2SC4081LNTE	CHIP	
	OR 2SD1819(S)	CHIP	
	OR 2SD1819A(S)	CHIP	
Q4806	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q4807	2SC3929	CHIP	
	OR 2SC4081LNTE	CHIP	
	OR 2SD1819(S)	CHIP	
	OR 2SD1819A(S)	CHIP	
Q4808	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q4809	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q4810	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q4811	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q4812	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	

*NOTE: When replacing the Main/Camera C.B.A., be sure to write the data to EEPROM.

Ref. No.	Part No.	Part Name	Remarks
		DIODES	
D4803	DA204U	CHIP	
	OR MA143	CHIP	
D4804	DA204U	CHIP	
	OR MA143	CHIP	
D6501	LN1251CAL-TR	TALLY LED CHIP	
	OR SML010LT-MNP	TALLY LED CHIP	
		RESISTORS	
R4801	VRJSD3D3901	MGF CHIP +-0.5% 1/16W 3.9K	
R4802	VRJSD3D3901	MGF CHIP +-0.5% 1/16W 3.9K	
R4803	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R4804	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R4805	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R4806	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R4807	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R4808	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4809	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4810	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R4811	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R4812	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R4813	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R4814	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R4815	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R4816	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R4817	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4818	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4819	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R4820	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R4821	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R4823	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R4824	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R4825	ERJ3GEYJ911V	MGF CHIP 1/16W 910	
R4826	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R4828	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R4829	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R4830	ERJ3GEYJ911V	MGF CHIP 1/16W 910	
R4831	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R4832	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4833	VRJSD3D1503	MGF CHIP +-0.5% 1/16W 150K	
R4834	VRJSD3D5602	MGF CHIP +-0.5% 1/16W 56K	
R4835	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R4836	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R4837	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R4838	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R4839	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R4840	VRJSD3D1503	MGF CHIP +-0.5% 1/16W 150K	
R4841	VRJSD3D5602	MGF CHIP +-0.5% 1/16W 56K	
R4842	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R4843	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R4844	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R4845	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R4846	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R4856	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R4857	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R6501	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
		CAPACITORS	
C4801	ECUV1H102KBV	C CHIP 50V 1000P	
C4802	ECUV1H102KBV	C CHIP 50V 1000P	
C4803	ECUV1C473KBV	C CHIP 16V 0.047	
C4804	ECUV1C153KBV	C CHIP 16V 0.015	
C4805	MCUV1C333KBV	C CHIP 16V 0.033	
C4806	ECUV1A154KBV	C CHIP 10V 0.15	
C4807	ECUV1H331KBV	C CHIP 50V 330P	
C4808	ECUV1H472KBV	C CHIP 50V 4700P	
C4809	ECUV1C153KBV	C CHIP 16V 0.015	
C4810	ECUV1C473KBV	C CHIP 16V 0.047	
C4811	ECUV1H331KBV	C CHIP 50V 330P	
C4812	ECUV1A154KBV	C CHIP 10V 0.15	
C4813	MCUV1C333KBV	C CHIP 16V 0.033	
C4814	ECUV1H472KBV	C CHIP 50V 4700P	
C4815	ECUV1C104KBV	C CHIP 16V 0.1	
C4816	MCUV1E273KBV	C CHIP 25V 0.027	
C4817	ECUV1C104KBV	C CHIP 16V 0.1	

(E21, E23, E24, E25, E26, E28)

Ref. No.	Part No.	Part Name	Remarks
C4818	MCUV1E273KBV	C CHIP 25V 0.027	
C4819	ECST1CY105	TANTALUM CHIP 16V 1	
C4820	ECUV1H102KBV	C CHIP 50V 1000P	
C4821	NMA0G336MTR	ELECTROLYTIC CHIP 4V 33	
C4822	ECST1CY105	TANTALUM CHIP 16V 1	
C4823	ECUV1H102KBV	C CHIP 50V 1000P	
C4824	NMA0G336MTR	ELECTROLYTIC CHIP 4V 33	
C4825	NMA0J226MTR	ELECTROLYTIC CHIP 6.3V 22	
C4826	ECUV1E103KBV	C CHIP 25V 0.01	
C4827	NMA0J226MTR	ELECTROLYTIC CHIP 6.3V 22	
C4828	NMA0J226MTR	ELECTROLYTIC CHIP 6.3V 22	
C6501	ECST0JY106	TANTALUM CHIP 6.3V 10	
C6502	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
		FILTERS	
FL4801	VLFS0596	FERRITE CHIP FILTER	
FL4802	VLQW0028	10	
FL4803	VLFS0596	FERRITE CHIP FILTER	
		JACKS	
JK4801	VJJS0368	MICROPHONE JACK SOCKET	
JK4802	VJJW0066	JACK F.P.C.	
		MISCELLANEOUS	
E21	VEKW1778	ELECTRIC CONDENSER MICROPHONE	
		UNIT	
E23	VMDW0500	MICROPHONE PIECE B	
E24	VMTW0030	MICROPHONE CUSHION,	
		POLYURETHANE	
E25	VMGW0222	MICROPHONE DAMPER	
E26	VMDW0499	MICROPHONE PIECE A	
E28	XQN2+BJ4FXK	SCREW,STEEL	
		REAR C.B.A.	■
		TRANSISTORS	
Q1101	2SA1615-ZT1K		
	OR 2SA1615-ZT1L		
	OR 2SA1834TLR		
	OR 2SA1834TLS		
Q1102	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q1103	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q1104	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q1105	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q1106	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q1107	DTC144EU	CHIP	
	OR MUN5213	CHIP	
	OR UN5213	CHIP	

(E31)

Ref. No.	Part No.	Part Name	Remarks
		DIODES	
D1101	RD12S-B-T1	ZENER CHIP 12V	
D1102	RD12S-B-T1	ZENER CHIP 12V	
D1103	DAP202UT	CHIP	
	OR MA141WA	CHIP	
	OR MA142WA	CHIP	
	OR MA142WAI	CHIP	
	OR M1MA142WA	CHIP	
D1104	RD12S-B-T1	ZENER CHIP 12V	
D1105	RD12S-B-T1	ZENER CHIP 12V	
		RESISTORS	
R1101	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R1102	ERJ8GEYJ681V	MGF CHIP 1/8W 680	
R1104	ERJ8GEYJR56V	MGF CHIP 1/8W 0.56	
R1105	ERJ8GEYJR56V	MGF CHIP 1/8W 0.56	
R1106	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1107	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R1108	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R1109	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R1110	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R1111	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R1112	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R1113	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R1114	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R1115	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
R8001	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8002	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8003	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8004	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8005	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8006	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8007	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
		CAPACITORS	
C1101	ECUE1H103KBV	C CHIP 50V 0.01	
C1102	ECST0JX226	TANTALUM CHIP 6.3V 22	
C1103	ECUE1C104ZFV	C CHIP +80%-20% 16V 0.1	
		PIN HEADERS	
B1101	VJP3644D028	BOARD TO BOARD 28P	
P1101	VJSW0037	CONNECTOR 10P	
		FPC CONNECTOR	
FP1101	VJS4013D005	FPC CONNECTOR 5P	
		FUSE & PROTECTOR	
F1101	VSFW0011	FUSE 32V 3A	⚠
F1102	VSFW0010	FUSE 63V 1.5A	⚠
		JACKS	
JK1101	VEK8300	BATTERY CACHER	
		MISCELLANEOUS	
E31	VL1220/1FC	BATTERY	

Ref. No.	Part No.	Part Name	Remarks
		ELECTRONIC VIEWFINDER ■	
		DRIVE C.B.A.	
		INTEGRATED CIRCUITS	
IC901	AN2522FHPA	IC,LINEAR VIDEO SIGNAL PROCESS	
		LCD PANEL INDICATION	
	OR AN2522NFHP	IC,LINEAR VIDEO SIGNAL PROCESS	
		LCD PANEL INDICATION	
IC902	TC7S14FTE85L	IC, CMOS STANDARD LOGIC	E.S.D.
		INVERTER	
IC903	TC7S08FTE85R	IC, CMOS STANDARD LOGIC AND	E.S.D.
		GATE	
		TRANSISTORS	
Q901	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q902	2SB1585	CHIP	
	OR 2SB970	CHIP	
Q903	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q904	FMW1T148	COMPLX CMP SI NPN CHIP	
	OR XN1501	COMPLX CMP SI NPN CHIP	
Q905	2SA1037K146R	CHIP	
	OR 2SB709	CHIP	
	OR 2SB709A	CHIP	
	OR 2SB709AI	CHIP	
Q908	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q909	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q910	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q911	DTA143TU	CHIP	
	OR UN5116	CHIP	
		DIODES	
D904	MA111	CHIP	
D906	MA728	CHIP	
		RESISTORS	
R901	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R902	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R903	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R904	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R905	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R906	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R907	ERJ3GEYJ683V	MGF CHIP 1/16W 68K	
R908	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R910	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R911	ERJ3GEYJ154V	MGF CHIP 1/16W 150K	
R913	ERJ3GEYJ331V	MGF CHIP 1/16W 330	
R915	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R917	ERJ3GEYJ392V	MGF CHIP 1/16W 3.9K	
R919	VRJSD3D1802	MGF CHIP +-0.5% 1/16W 18K	
R920	VRJSD3D1501	MGF CHIP +-0.5% 1/16W 1.5K	
R921	VRJSD3D8201	MGF CHIP +-0.5% 1/16W 8.2K	
R924	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R925	ERJ3GEYJ183V	MGF CHIP 1/16W 18K	
R927	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R928	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R929	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R930	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R931	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R932	ERJ3GEYJ101V	MGF CHIP 1/16W 100	

Ref. No.	Part No.	Part Name	Remarks
R933	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R934	ERJ3GEYJ433V	MGF CHIP 1/16W 43K	
R937	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R938	ERJ3GEYJ202V	MGF CHIP 1/16W 2K	
R939	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R941	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R942	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R943	VRJSD3D2702	MGF CHIP +-0.5% 1/16W 27K	
R944	VRJSD3D3301	MGF CHIP +-0.5% 1/16W 3.3K	
R945	VRJSD3D2202	MGF CHIP +-0.5% 1/16W 22K	
R946	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R948	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R949	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R950	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R951	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R954	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
		CAPACITORS	
C901	ECST0JY106	TANTALUM CHIP 6.3V 10	
C902	VCUSQAC475KB	C CHIP 16V 4.7	
C903	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C904	ECST0JY475	TANTALUM CHIP 6.3V 4.7	
C905	ECST0JY475	TANTALUM CHIP 6.3V 4.7	
C906	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C907	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
C908	ECUV1H222KBV	C CHIP 50V 2200P	
C909	ECST0JY475	TANTALUM CHIP 6.3V 4.7	
C910	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C911	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C912	ECUV1H152KBV	C CHIP 50V 1500P	
C913	ECST0JX226	TANTALUM CHIP 6.3V 22	
C914	ECUV1C104KBV	C CHIP 16V 0.1	
C915	ECST0JY106	TANTALUM CHIP 6.3V 10	
C916	ECST0JY106	TANTALUM CHIP 6.3V 10	
C917	ECUV1A105ZFV	C CHIP +80%-20% 10V 1	
C918	VCUSQE105KB	C CHIP 25V 1	
C919	ECUV1A105ZFV	C CHIP +80%-20% 10V 1	
C920	ECUV1A105ZFV	C CHIP +80%-20% 10V 1	
C922	ECUV1H103ZFV	C CHIP +80%-20% 50V 0.01	
C923	ECST1AY225	TANTALUM CHIP 10V 2.2	
C924	VCUSQAC475KB	C CHIP 16V 4.7	
C925	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C926	ECUV1H101JCV	C CHIP +-5% 50V 100P	
C928	ECUV1H471JCV	C CHIP +-5% 50V 470P	
C929	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
C930	ECST1AX226	TANTALUM CHIP 10V 22	
C931	ECUV1C104KBV	C CHIP 16V 0.1	
C932	ECUV1H560JCV	C CHIP +-5% 50V 56P	
C933	ECUV1H560JCV	C CHIP +-5% 50V 56P	
		COILS	
L901	VLQ0464K150	CHIP 15	
L902	VLQ0780K470	CHIP 47	
L903	VLQ0780K100	CHIP 10	
		PIN HEADERS	
B901	VJS2961C006	BOARD TO BOARD 6P	
		FPC CONNECTOR	
FP901	VJS4013D026	FPC CONNECTOR 26P	
FP902	VJS4013D020	FPC CONNECTOR 20P	

(E33)

Ref. No.	Part No.	Part Name	Remarks
		ELECTRONIC VIEWFINDER ■	
		BACKLIGHT C.B.A.	
		TRANSISTORS	
Q951	2SK1299STL	F.E.T.	
		CAPACITORS	
C952	VCUSQAJ106KB	C CHIP 6.3V 10	
		COILS	
L951	SLF6028T101M	CHOKE +-20% 100	
		PIN HEADERS	
B951	VJP3126D006	BOARD TO BOARD 6P	
		TRANSFORMER	
T951	ETJ09K45AM		⚠
		LAMP	
PL951	VLLW0017	LAMP	
		CCD C.B.A.	■
		INTEGRATED CIRCUITS	
IC601	MN37290FT	IC, CCD	E.S.D.
		TRANSISTORS	
Q601	2SC3931	CHIP	
		RESISTORS	
R417	ERDS2TJ105	1M	
R601	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R602	ERJ8GEYJ470V	MGF CHIP 1/8W 47	
R661	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
		CAPACITORS	
C601	ECST1EY105	TANTALUM CHIP 25V 1	
C603	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
C664	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
		MISCELLANEOUS	
E33	VMDW0465	CCD SURFACE PLATE,ZN	
		LIQUID CRYSTAL DISPLAY ■	
		C.B.A.	
		INTEGRATED CIRCUITS	
IC8001	AN2537FHQ	IC, LINEAR RGB SIGNAL PROCESS	
		LCD PANEL INDICATOR	
IC8002	XC6365C503MR	IC, LINEAR SWITCHING CONTROL	
IC8003	TA75S558F8SL	IC, LINEAR OP AMP	
IC8004	TA75S558F8SL	IC, LINEAR OP AMP	
		TRANSISTORS	
Q8003	XP4314	COMPLX CMP SI NPN/PNP CHIP	
Q8004	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q8005	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q8006	2SB1585	CHIP	
	OR 2SB970	CHIP	

Ref. No.	Part No.	Part Name	Remarks
Q8007	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q8008	2SB1585	CHIP	
	OR 2SB970	CHIP	
Q8009	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8011	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8012	XP1501	CHIP	
Q8013	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8014	DTC144EU	CHIP	
	OR MUN5213	CHIP	
	OR UN5213	CHIP	
Q8015	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q8016	DTC144EU	CHIP	
	OR MUN5213	CHIP	
	OR UN5213	CHIP	
Q8017	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8018	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8020	MSB1218A(R)	CHIP	
	OR 2SA1576T106R	CHIP	
	OR 2SB1218A	CHIP	
	OR 2SB1218AI	CHIP	
Q8022	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q8023	MSD1819A(R)	CHIP	
	OR 2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
	OR 2SD1819AI	CHIP	
Q8024	DTC124EU	CHIP	
	OR MUN5212T1	CHIP	
	OR UN5212	CHIP	
Q8025	2SK1580	F.E.T. CHIP	
Q8028	UMD12N	COMPLX CMP SI NPN/PNP CHIP	
Q8030	DTA114YU	CHIP	
	OR UN5114	CHIP	
Q8031	2SD1119	CHIP	⚠
	OR 2SD2150T100R	CHIP	⚠
Q8032	2SD1119	CHIP	⚠
	OR 2SD2150T100R	CHIP	⚠
Q8038	XP162A01B5PR	F.E.T. CHIP	
		DIODES	
D8003	MA8068-L	ZENER CHIP 6.8V	
D8006	MA720	CHIP	
	OR SSB14-LT	CHIP	
		RESISTORS	
R8001	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8005	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8009	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8011	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8012	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8013	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8014	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8015	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	

Ref. No.	Part No.	Part Name	Remarks
R8016	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8018	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8020	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8022	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8023	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8025	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8027	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8029	ERJ3GEYJ392V	MGF CHIP 1/16W 3.9K	
R8030	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R8032	VRJSD3D2702	MGF CHIP +-0.5% 1/16W 27K	
R8033	VRJSD3D1002	MGF CHIP +-0.5% 1/16W 10K	
R8034	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8035	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R8037	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8038	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8039	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8041	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8043	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8045	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8046	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8048	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8050	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8051	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8052	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8055	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
R8056	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8057	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8058	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R8059	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R8061	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8062	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8063	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8064	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8065	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8066	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R8067	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8068	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8069	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8070	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8071	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8072	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8073	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R8074	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R8075	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8078	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8079	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8080	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8081	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8082	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8083	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8084	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8087	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R8088	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8089	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8090	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R8091	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8094	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R8095	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8097	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8098	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8100	ERJ3GEY0R00V	MGF CHIP 1/16W 0	●
R8101	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8102	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R8105	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8106	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8110	ERJ3GEYJ113V	MGF CHIP 1/16W 11K	
		CAPACITORS	
C8003	VCUSQAC475KB	C CHIP 16V 4.7	
C8004	ECUV1C104KBV	C CHIP 16V 0.1	
C8005	ECUE1H103KBV	C CHIP 50V 0.01	
C8006	ECUV1C104KBN	C CHIP 16V 0.1	
C8007	NMA0J226MTR	ELECTROLYTIC CHIP 6.3V 22	
C8008	ECUV1C104KBV	C CHIP 16V 0.1	
C8009	ECUV0J105KBV	C CHIP 6.3V 1	
C8010	ECUV0J105KBV	C CHIP 6.3V 1	
C8011	ECST0JY475	TANTALUM CHIP 6.3V 4.7	

(E36, E37)

Ref. No.	Part No.	Part Name	Remarks
C8012	ECST0JY475	TANTALUM CHIP 6.3V 4.7	
C8013	ECUV0J105KBV	C CHIP 6.3V 1	
C8014	ECUV1C104KBV	C CHIP 16V 0.1	
C8015	ECUV1H681KBV	C CHIP 50V 680P	
C8016	ECUV1C104KBV	C CHIP 16V 0.1	
C8017	ECUV1C104KBV	C CHIP 16V 0.1	
C8018	ECUV1H103KBV	C CHIP 50V 0.01	
C8019	ECUV1C104KBV	C CHIP 16V 0.1	
C8020	MCUV1E104KBN	C CHIP 25V 0.1	
C8021	NMA0J226MTR	ELECTROLYTIC CHIP 6.3V 22	
C8022	ECUV1C104KBV	C CHIP 16V 0.1	
C8023	ECUV1A105KBN	C CHIP 10V 1	
C8024	VCUSQBA225KB	C CHIP 10V 2.2	
C8025	ECST1CY475	TANTALUM CHIP 16V 4.7	
C8026	VCUSQAC225KB	C CHIP 16V 2.2	
C8027	VCUSQBA225KB	C CHIP 10V 2.2	
C8028	ECUE1H103KBV	C CHIP 50V 0.01	
C8029	VCUSQBA225KB	C CHIP 10V 2.2	
C8030	ECUV1H152KBV	C CHIP 50V 1500P	
C8032	ECST1AY225	TANTALUM CHIP 10V 2.2	
C8033	VCUSQBA225KB	C CHIP 10V 2.2	
C8034	ECST1AX106	TANTALUM CHIP 10V 10	
C8036	VCUSQAC225KB	C CHIP 16V 2.2	
C8037	VCUSQBA225KB	C CHIP 10V 2.2	
C8039	ECUV1H151JCV	C CHIP +-5% 50V 150P	
C8040	VCUSQBC105KB	C CHIP 16V 1	
C8041	EEFCD0J220R	TANTALUM CHIP 6.3V 22	
C8042	VCUSQBA225KB	C CHIP 10V 2.2	
C8045	ECWU1H223JB5	POLYESTER +-5% 50V 0.022	
C8047	VCUSQAC105KB	C CHIP 16V 1	
C8048	VCCM0008	C CHIP	
C8049	ECUE1H103KBV	C CHIP 50V 0.01	
C8050	ECUV1C104KBV	C CHIP 16V 0.1	
C8051	ECST0JY106	TANTALUM CHIP 6.3V 10	
C8052	ECST0JY106	TANTALUM CHIP 6.3V 10	
C8053	VCUSQBC105KB	C CHIP 16V 1	
C8054	ECUV1C104KBV	C CHIP 16V 0.1	
		COILS	
L8002	VLQ0464K220	CHIP 22	
L8003	SLF6028T100M	CHOKE +-20% 10	
L8004	VLQ0426J150	CHIP +-5% 15	
L8005	VLQ0426J150	CHIP +-5% 15	
L8006	SLF6028T330M	CHOKE +-20% 33	
L8007	VLQ0426J150	CHIP +-5% 15	
L8008	SLF6028T680M	CHOKE +-20% 68	⚠
L8009	VLQ0426J150	CHIP +-5% 15	
L8010	VLQ0426J150	CHIP +-5% 15	
L8011	VLQ0426J150	CHIP +-5% 15	
		FPC CONNECTOR	
FP8001	VJS4012D005	FPC CONNECTOR 5P	
FP8002	VJS3971D021	FPC CONNECTOR 21P	
FP8003	VJS3971D021	FPC CONNECTOR 21P	
FP8004	VJS4012D024	FPC CONNECTOR 24P	
		TRANSFORMER	
T8001	VLTW0054		⚠
		MISCELLANEOUS	
E36	VMZW0660	INSULATION SHEET,PLASTIC	
E37	VMZW0650	INSULATION SHEET,PLASTIC	

(E11, E41, E42)

Ref. No.	Part No.	Part Name	Remarks
		HEAD AMP C.B.A.	■
		INTEGRATED CIRCUITS	
IC5001	AN3731FHQ	IC, LINEAR HEAD/REC AMP	
		TRANSISTORS	
Q5002	2SC3937	CHIP	
Q5003	2SC3937	CHIP	
Q5005	2SD1938F	CHIP	
Q5006	2SD1938F	CHIP	
		RESISTORS	
R5002	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R5003	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R5004	ERJ2GE0R00X	MGF CHIP 1/16W 0	●
R5005	ERJ2GEJ102X	MGF CHIP 1/16W 1K	
R5010	ERJ2GEJ680X	MGF CHIP 1/16W 68	
R5012	ERJ3GEYJ152V	MGF CHIP 1/16W 1.5K	
R5013	ERJ3GEYJ123V	MGF CHIP 1/16W 12K	
R5014	ERJ2GEJ271X	MGF CHIP 1/16W 270	
R5015	ERJ2GEJ271X	MGF CHIP 1/16W 270	
R5016	ERJ2GEJ102X	MGF CHIP 1/16W 1K	
R5017	ERJ2GEJ102X	MGF CHIP 1/16W 1K	
R5018	ERJ2GEJ680X	MGF CHIP 1/16W 68	
R5019	ERJ3GEYJ123V	MGF CHIP 1/16W 12K	
R5020	ERJ3GEYJ152V	MGF CHIP 1/16W 1.5K	
R5021	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R5025	ERJ2GEJ271X	MGF CHIP 1/16W 270	
R5028	ERJ2GEJ152X	MGF CHIP 1/16W 1.5K	
		CAPACITORS	
C5001	ECUE1C103KBQ	C CHIP 16V 0.01	
C5002	ECUE1C103KBQ	C CHIP 16V 0.01	
C5004	ECUE1C103KBQ	C CHIP 16V 0.01	
C5007	ECUE1C103KBQ	C CHIP 16V 0.01	
C5010	ECUE1C103KBQ	C CHIP 16V 0.01	
C5013	ECUE1E152KBQ	C CHIP 25V 1500P	
C5014	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5015	ECUE1C103KBQ	C CHIP 16V 0.01	
C5016	ECUE1H330JCQ	C CHIP +-5% 50V 33P	
C5017	ECUE1C103KBQ	C CHIP 16V 0.01	
C5019	ECUE1C103KBQ	C CHIP 16V 0.01	
C5020	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5021	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5022	ECUE1H150JCQ	C CHIP +-5% 50V 15P	
C5023	ECUE1C103KBQ	C CHIP 16V 0.01	
C5024	ECUE1C103KBQ	C CHIP 16V 0.01	
C5025	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5026	ECUE1E152KBQ	C CHIP 25V 1500P	
C5027	ECUE1H330JCQ	C CHIP +-5% 50V 33P	
C5028	ECUE1E122KBQ	C CHIP 25V 1200P	
C5031	ECUE1C103KBQ	C CHIP 16V 0.01	
C5032	ECUE1H470JCQ	C CHIP +-5% 50V 47P	
C5033	ECUE1E681KBQ	C CHIP 25V 680P	
C5034	ECUE1C103KBQ	C CHIP 16V 0.01	
C5035	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5036	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5037	EEJK0JS106R	TANTALUM CHIP 6.3V 10	
C5038	ECUE1C103KBQ	C CHIP 16V 0.01	
C5039	ECUE1C103KBQ	C CHIP 16V 0.01	
C5040	ECUE1C103KBQ	C CHIP 16V 0.01	
		COILS	
L5002	VLQ0808K220	CHIP 22	
L5003	VLQ0808K220	CHIP 22	
L5005	VLQ0807M4R7	CHIP +-20% 4.7	
L5007	VLQ0807M4R7	CHIP +-20% 4.7	
		FPC CONNECTOR	
FP5001	VJS4036D008	FPC CONNECTOR 8P	

Ref. No.	Part No.	Part Name	Remarks
		MISCELLANEOUS	
E41	VMP5631	FIXING FRAME	
E42	XQN16+B3	SCREW,STEEL	
		ELECTRICAL PARTS LOCATED ON CHASSIS	
E11	VJBW1657F	LIGHT FLEXIBLE PRINTED CIRCUIT	
		SUMMARY OF "E" ITEM NUMBERS REFER TO ELECTRICAL PARTS LIST FOR MODEL INFORMATION	
E1	VEQW0302	MAIN/CAMERA C.B.A. NR	
E3	VXMW0111	FRONT C.B.A.	RTL
E4	VEPW1653A1	REAR C.B.A.	RTL
E5	VEPW1654A1	ELECTRONIC VIEWFINDER DRIVE C.B.A.	RTL
E6	VEPW1655A1	ELECTRONIC VIEWFINDER BACKLIGHT C.B.A.	RTL
E7	VEQW0284	CCD C.B.A.	RTL
E8	VEPW1651A1	LIQUID CRYSTAL DISPLAY C.B.A.	RTL
E9	VEQW0289	HEAD AMP C.B.A.	RTL
E10	VEPW1665A1	SHORT JIG C.B.A. NR	
E11	VJBW1657F	LIGHT FLEXIBLE PRINTED CIRCUIT	
E21	VEKW1778	ELECTRIC CONDENSER MICROPHONE UNIT	
E23	VMDW0500	MICROPHONE PIECE B	
E24	VMTW0030	MICROPHONE CUSHION, POLYURETHANE	
E25	VMGW0222	MICROPHONE DAMPER	
E26	VMDW0499	MICROPHONE PIECE A	
E28	XQN2+BJ4FXK	SCREW,STEEL	
E31	VL1220/1FC	BATTERY	
E33	VMDW0465	CCD SURFACE PLATE,ZN	
E36	VMZW0660	INSULATION SHEET,PLASTIC	
E37	VMZW0650	INSULATION SHEET,PLASTIC	
E41	VMP5631	FIXING FRAME	
E42	XQN16+B3	SCREW,STEEL	

AC ADAPTOR SECTION

DISASSEMBLY/ASSEMBLY PROCEDURES

DISASSEMBLY/ASSEMBLY PROCEDURES OF AC ADAPTOR

DISASSEMBLY FLOW CHART

This flow chart indicates the disassembly steps of the cabinet parts and the P.C.Boards in order to gain access to item (s) to be serviced. When reassembling, perform the step (s) in the reverse order. Bend, route and dress the wires as they were originally.

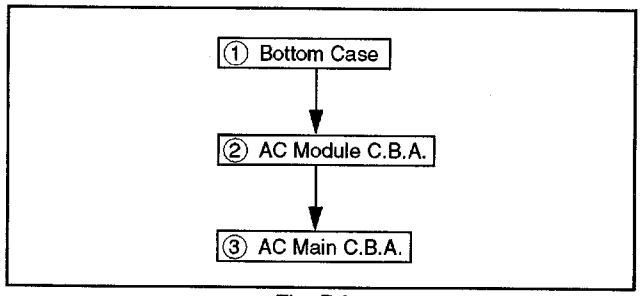
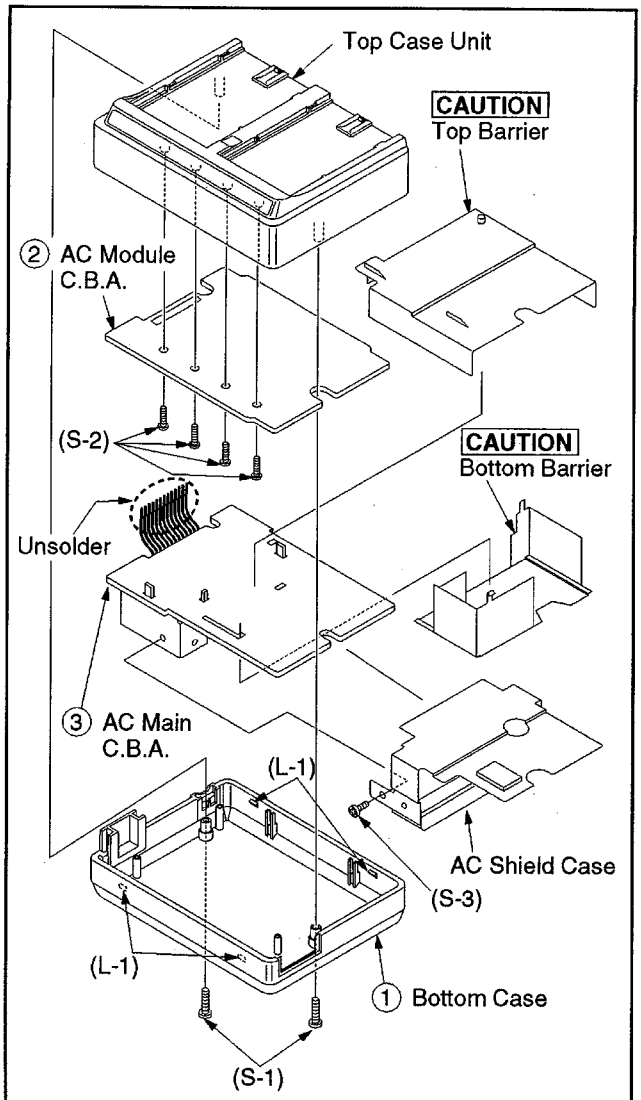


Fig. DA1

Note:
Disconnect the AC Plug before disassembling.

DISASSEMBLY METHOD

STEP /LOC. No.	PART	Fig. No.	REMOVE
①	Bottom Case	DA2	2(S-1), 4(L-1)
②	AC Module C.B.A.	DA2	4(S-2), Top Case Unit, Unsolder
③	AC Main C.B.A.	DA2	(S-3), AC Shield Case, Top Barrier, Bottom Barrier



CAUTION:
For continued safety, be sure to reinstall the Barriers to the original position after removing them.

Fig. DA2

ELECTRICAL ADJUSTMENT

TEST EQUIPMENT

To do Reference voltage adjustments, the following equipments are required.

1. DVM (Digital Volt Metet)
2. Plastic Tip Driver or Non-metal Driver

Reference Voltage Adjustment

Purpose:
To set the proper reference voltage output.
Symptom of Msadjustment:
All circuits will not operate properly.

Check point:	Between Pin 4 and Pin 8 of P02 on AC Main C.B.A.
Adjustment:	VR21
Specification:	+4.175VDC +/-0.01V
Mode:	-----
Equipment:	DVM (Digital Voltage Meter)

Adjustment Procedure:

1. Remove the Bottom Case of the AC Adaptor (Refer to Disassembly/Assembly Procedures of AC Adaptor.) and place the unit as shown in Fig. A1.
2. Connect the DVM (Digital Voltage Meter) as shown in Fig. A1.
3. Apply AC120V to AC Input (AC Cord Plug).
4. Adjust VR21 so that the voltage becomes +4.175 +/- 0.01VDC.

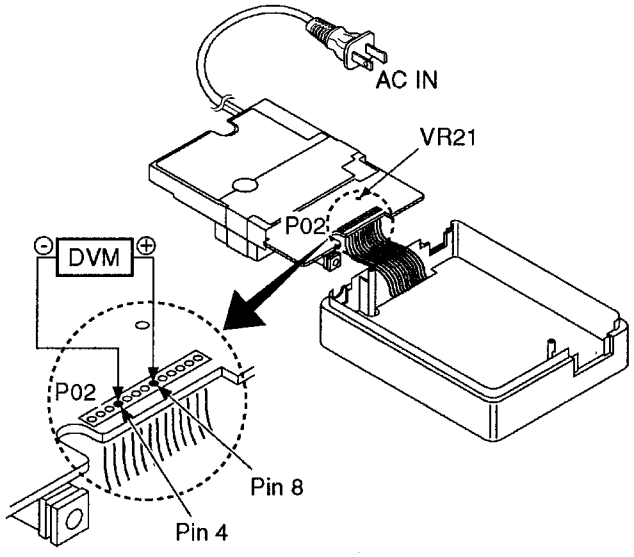


Fig. A1

SCHEMATIC DIAGRAMS

AC MAIN SCHEMATIC DIAGRAM

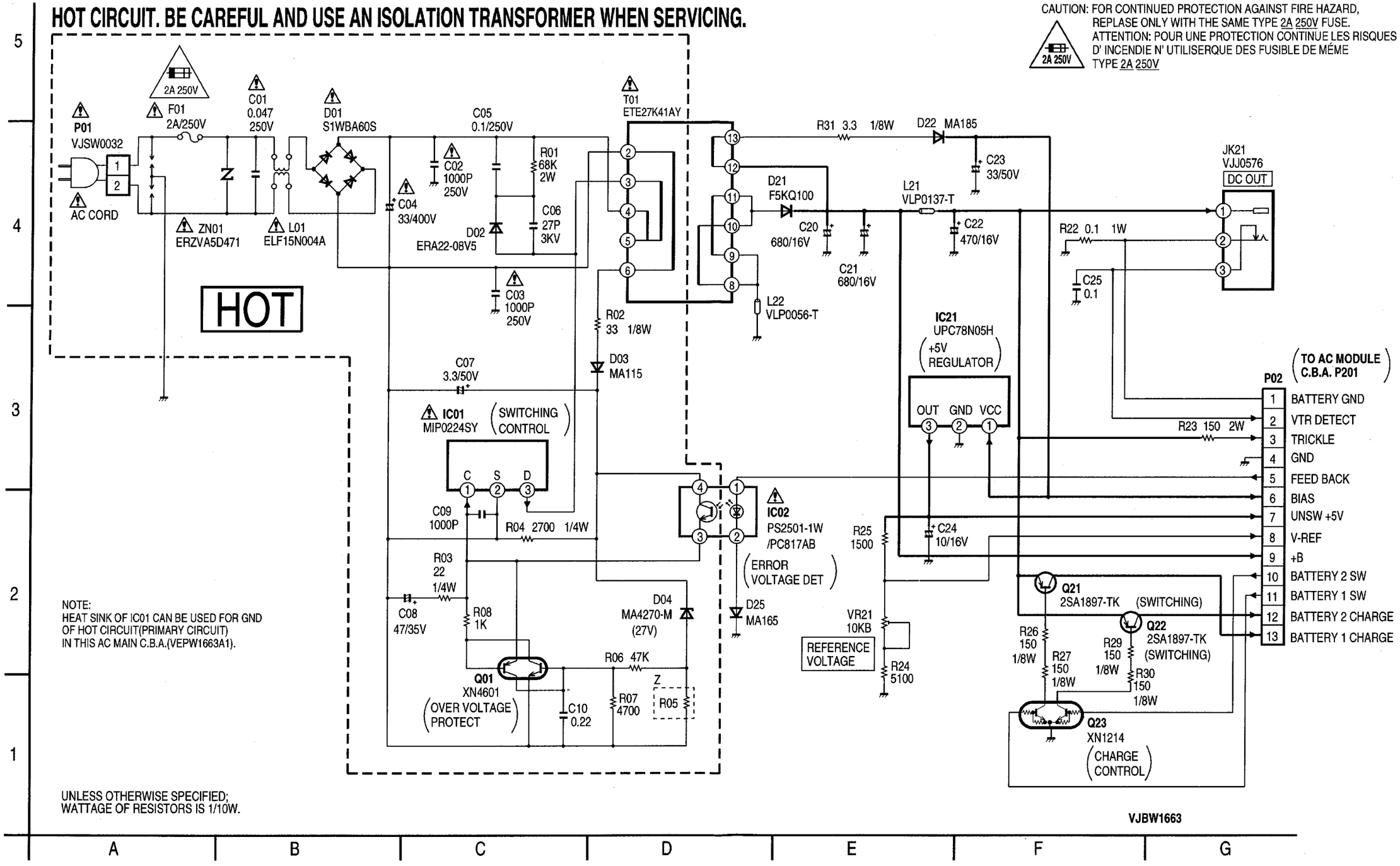
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION, PAGE 4-1.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 2A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 250V

HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.



NOTE:
HEAT SINK OF IC01 CAN BE USED FOR GND
OF HOT CIRCUIT(PRIMARY CIRCUIT)
IN THIS AC MAIN C.B.A.(VEPW1663A1).

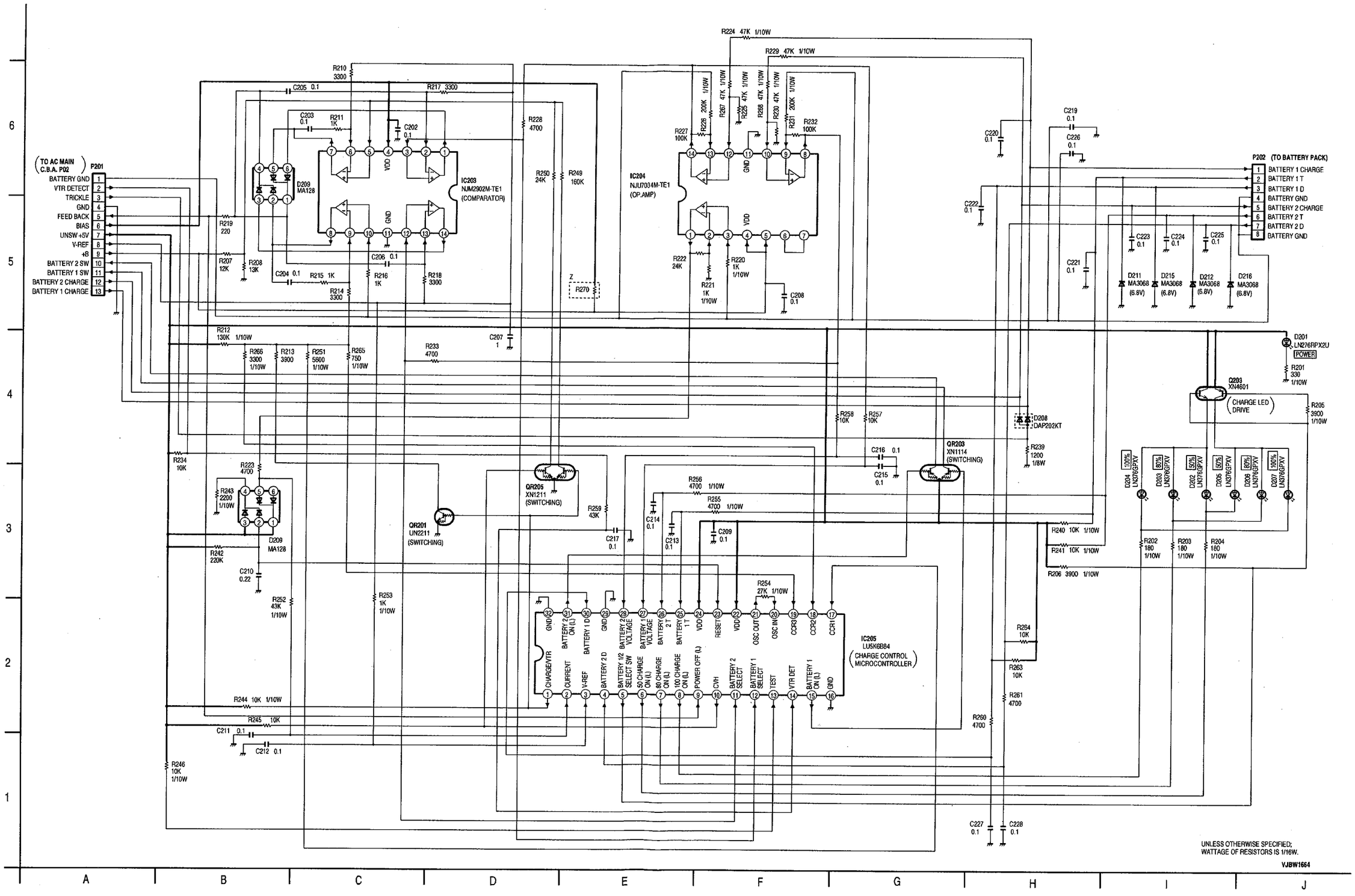
UNLESS OTHERWISE SPECIFIED;
WATTAGE OF RESISTORS IS 1/10W.

VJBW1663

AC MODULE SCHEMATIC DIAGRAM

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION, PAGE 4-1.

NOTE:
PARTS ENCLOSED IN DASHED LINES MARKED "Z" ARE NOT USED.



CIRCUIT BOARD LAYOUT
AC MAIN C.B.A. VEPW1663A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION, PAGE 4-1.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLASE ONLY WITH THE SAME TYPE 2A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 250V

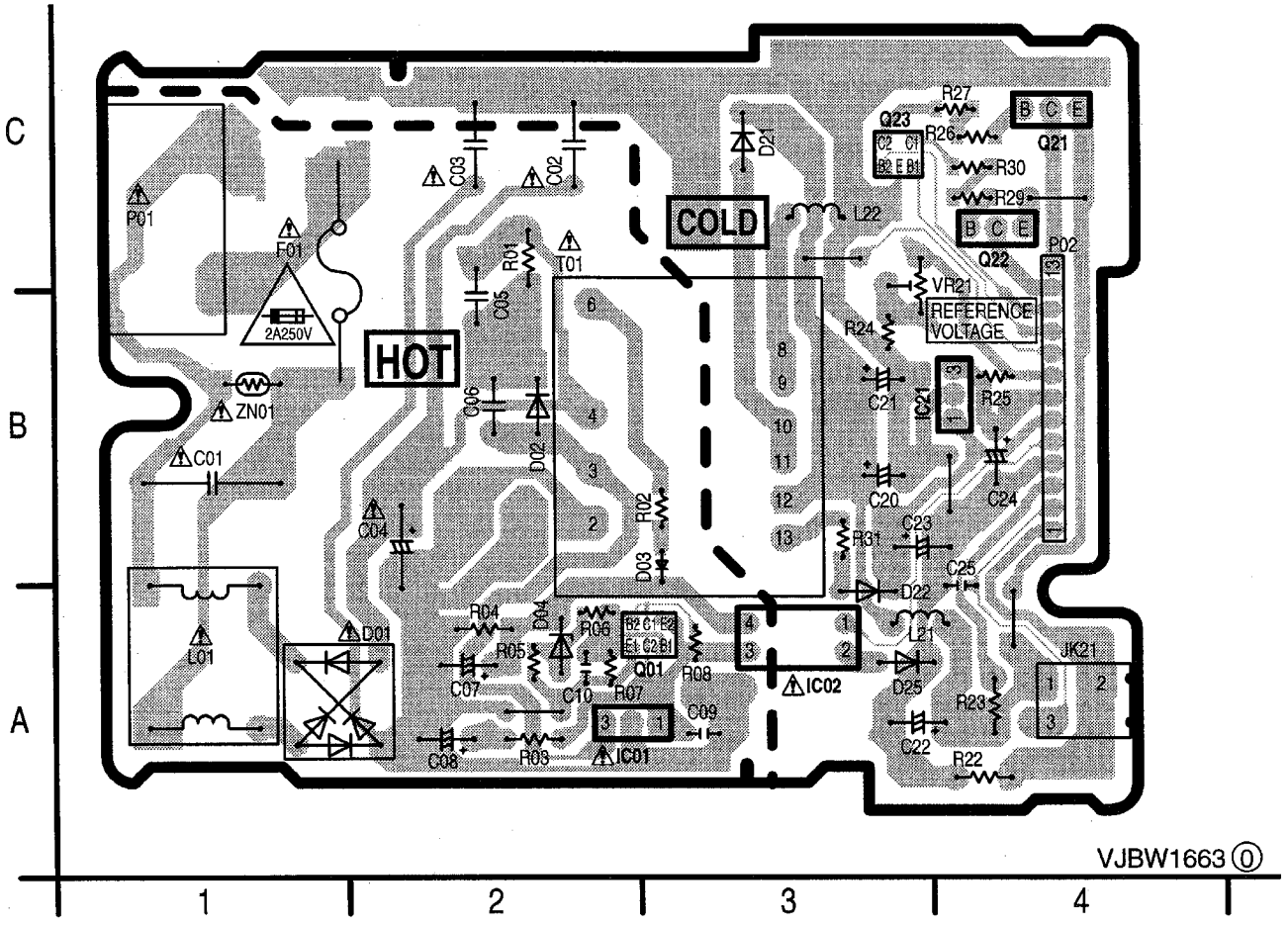
2A 250V

AC MAIN C.B.A.

Integrated Circuit		D22	A-4	C04	B-2	Resistor		R29	C-4
IC01	A-3	D25	A-4	C05	B-2	R01	C-2	R30	C-4
IC02	A-3	Connector		C06	B-2	R02	B-3	R31	B-3
IC21	B-4	P01	C-1	C07	A-2	R03	A-2	Variable Resistor	
Transistor		P02	B-4	C08	A-2	R04	A-2	VR21	B-4
Q01	A-3	Jack		C09	A-3	R05	A-2	Fuse	
Q21	C-4	JK21	A-4	C10	A-2	R06	A-3	F01	C-1
Q22	C-4	Coil		C20	B-4	R07	A-3	Transformer	
Q23	C-4	L01	A-1	C21	B-4	R08	A-3	T01	C-2
Diode		L21	A-4	C22	A-4	R22	A-4		
D01	A-2	L22	C-3	C23	B-4	R23	A-4		
D02	B-2	Capacitor		C24	B-4	R24	B-3		
D03	A-3	C01	B-1	C25	A-4	R25	B-4		
D04	A-2	C02	C-2			R26	C-4		
D21	C-3	C03	C-2			R27	C-4		

ADDRESS INFORMATION

HOT CIRCUIT.BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.



AC MODULE C.B.A. VEPW1664A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION, PAGE 4-1.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

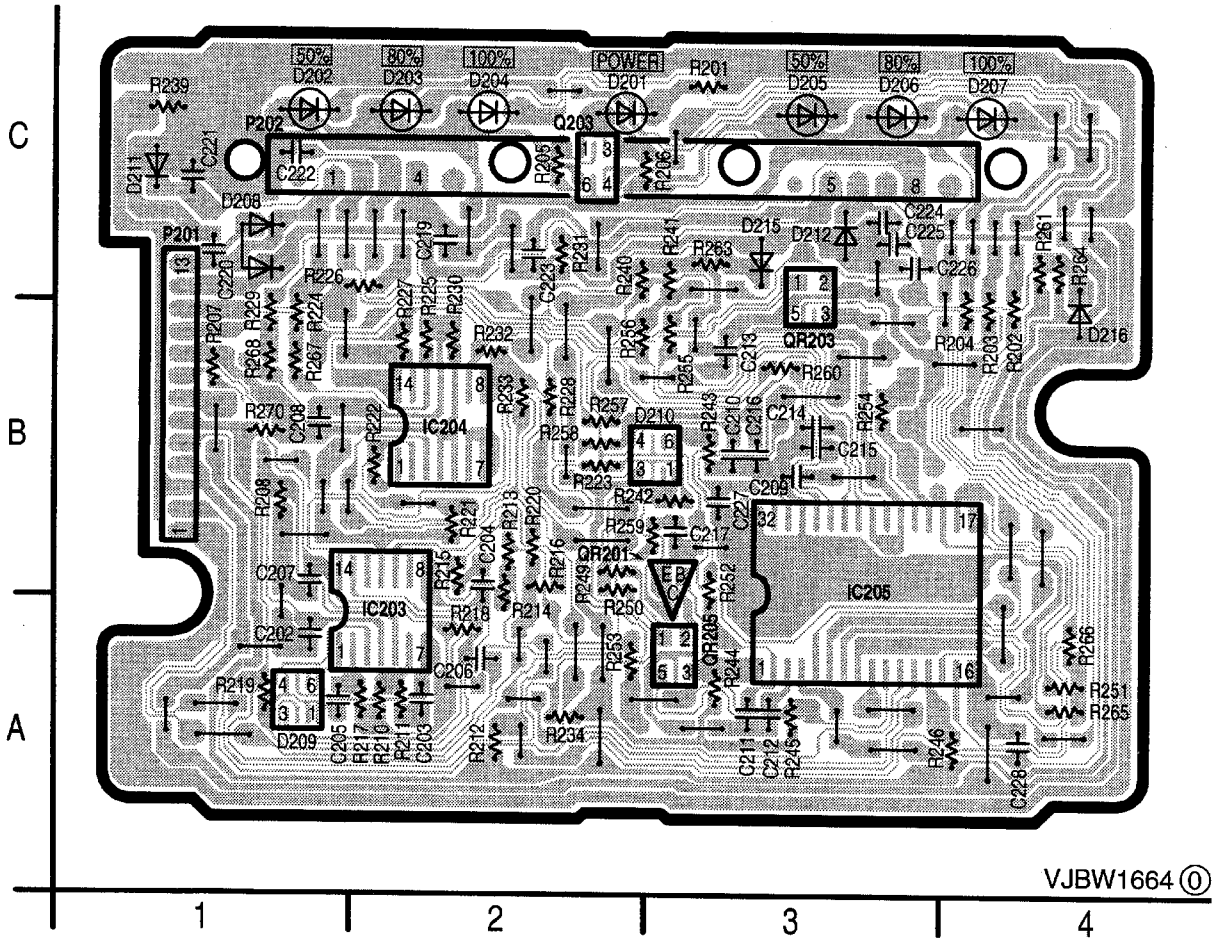
AC MODULE C.B.A.

Integrated Circuit	
IC203	A-2
IC204	B-2
IC205	A-3
Transistor	
Q203	C-2
QR201	B-2
QR203	B-3
QR205	A-3
Diode	
D201	C-2
D202	C-1
D203	C-2
D204	C-2
D205	C-3
D206	C-3
D207	C-4
D208	C-1
D209	A-1
D210	B-2
D211	C-1
D212	C-3
D215	C-3
D216	B-4

Connector	
P201	C-1
P202	C-1
Capacitor	
C202	A-1
C203	A-2
C204	B-2
C205	A-1
C206	A-2
C207	A-1
C208	B-1
C209	B-3
C210	B-3
C211	A-3
C212	A-3
C213	B-3
C214	B-3
C215	B-3
C216	B-3
C217	B-3
C219	C-2
C220	B-1
C221	C-1
C222	C-1
C223	B-2
C224	C-3
C225	C-3
C226	C-4
C227	B-3
C228	A-4

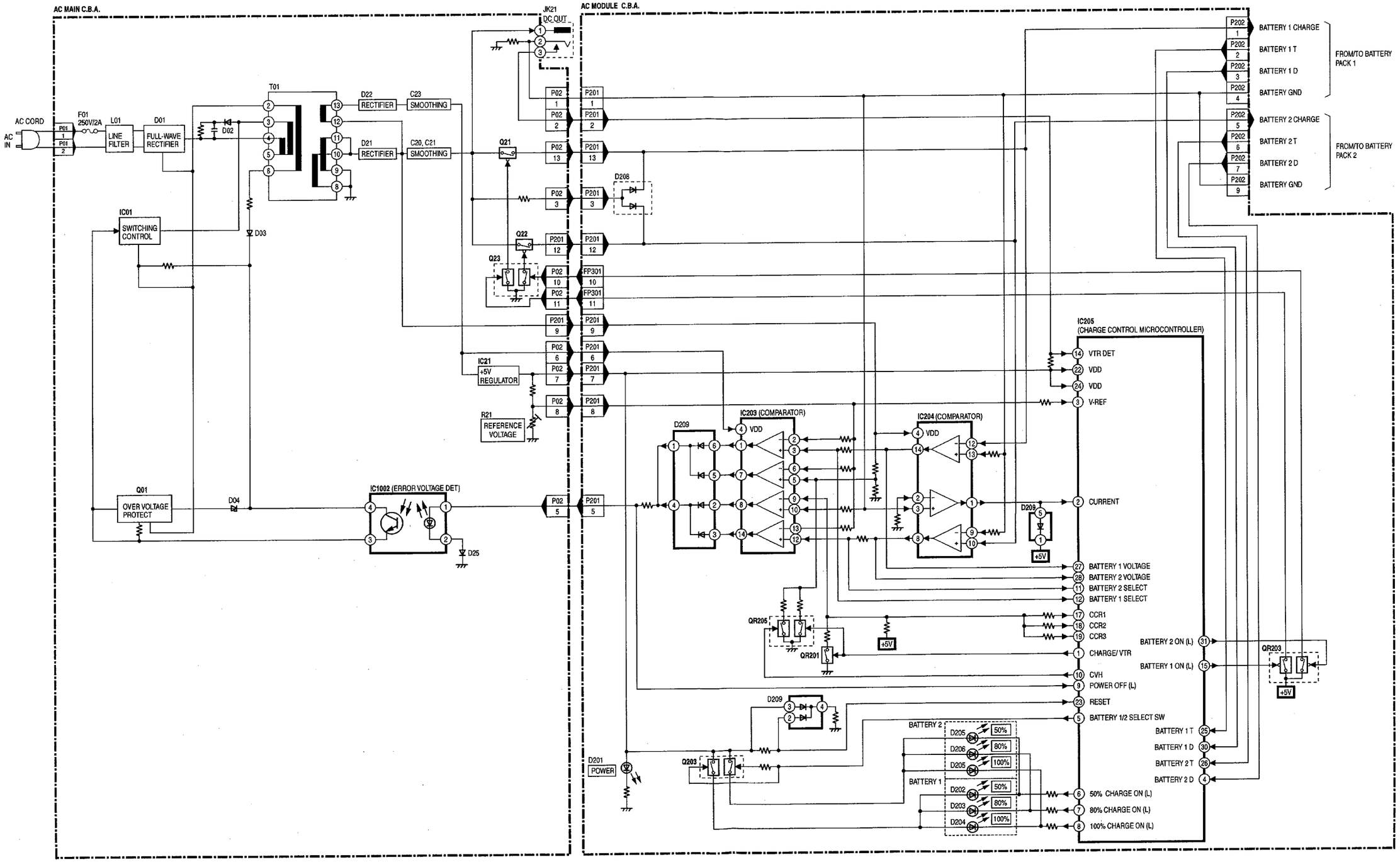
Resistor	
R201	C-3
R202	B-4
R203	B-4
R204	B-4
R205	C-2
R206	C-3
R207	B-1
R208	B-1
R210	A-2
R211	A-2
R212	A-2
R213	B-2
R214	A-2
R215	A-2
R216	A-2
R217	A-2
R218	A-2
R219	A-1
R220	B-2
R221	B-2
R222	B-2
R223	B-2
R224	B-1
R225	B-2
R226	B-1
R227	B-2
R228	B-2
R229	B-1
R230	B-2
R231	C-2
R232	B-2
R233	B-2
R234	A-2
R239	C-1
R240	B-2
R241	C-3
R242	B-2
R243	B-3
R244	A-3
R245	A-3
R246	A-3
R249	A-2
R250	A-2
R251	A-4
R252	A-3
R253	A-2
R254	B-3
R255	B-3
R256	B-2
R257	B-2
R258	B-2
R259	B-2
R260	B-3
R261	C-4
R263	C-3
R265	A-4
R264	A-4
R266	A-4
R267	B-1
R268	B-1
R270	B-1

ADDRESS INFORMATION



BLOCK DIAGRAM

AC ADAPTOR BLOCK DIAGRAM



REPLACEMENT PARTS LISTS

BEFORE REPLACING PARTS, READ THE FOLLOWING:

REPLACEMENT NOTES

General Notes

1. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.
2. **IMPORTANT SAFETY NOTICE**
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.
3. SPECIAL NOTE
   All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.
4. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.

Electrical Replacement Notes

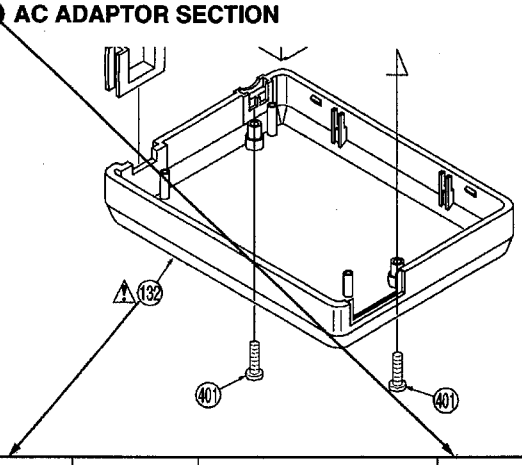
1. Item numbers with capital letter E (Example: E1, E2,...) in the Ref. No. column are shown in the exploded views. The E item numbers are also printed on the same page at the top of the column.
2. The parts with "■" mark are supplied individually or as a unit.
3. Unless otherwise specified;
   All resistors are in ohms, 1/4W, +/-5%, carbon,
   K = 1,000 ohm, M = 1,000 kohm.
   All capacitors are in microfarads, P = micromicrofarad, +/-10%.
   All coils are in microhenries, M = 1,000 microhenry, +/-10%.
4. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
   NR: Non Repairable Board Ass'y
   MGF CHIP: Metal Glaze Film Chip
   C CHIP: Ceramic Chip
   COMPLX CMP: Complex Component
   W FLMPRF: Wirewound Flameproof
   C.B.A.: Circuit Board Assembly
   P.C.B.: Printed Circuit Board
   E.S.D.: Electrostatically Sensitive Devices
5. SERVICE OF CHIP PARTS
   When servicing chip parts, please use a soldering iron of less than 30 watts. Refer to "IC, TRANSISTOR AND CHIP PART INFORMATION" page.
6. The parts with "●" are 0 ohm resistor. When replacing, a wire can be substituted for a 0 ohm resistor.

MECHANICAL REPLACEMENT PARTS LIST

<The complete Exploded Views are shown in this manual.>

EXPLODED VIEWS

❶ AC ADAPTOR SECTION



Ref. No.	Part No.	Part Name	Remarks
		MECHANISM PARTS ON CHASSIS	
			(Section No.)
107	VSQW0042	JACK BOX	2
108	VJAW0042	DC CABLE W/PLUG	2
109	VJAW0044	AC CABLE W/PLUG	⚠ 2
121	VQTW0735	INSTRUCTION BOOK	2
122	VPGW0746	AC PAD	2
123	VPGW0743	PACKING CASE,PAPER	2
131	VYKW3123	TOP CASE UNIT	1
132	VKM4877	BOTTOM CASE,ABS RESIN	⚠ 1
133	VGQS1016	BLIND PIECE	1
134	VWZS0022	SILICONE TUBE	1
135	VQLW2036	AC CAUTION LABEL	1
137	VMZW0663	TOP BARRIER	⚠ 1
138	VMZW0664	BOTTOM BARRIER	⚠ 1
139	VSCW0949	AC SHIELD CASE,STEEL	1
		SCREWS	
401	XTB2+8GFZ	TAPPING SCREW,STEEL	1
411	XQN2+CG6FZ	SCREW,STEEL	1
412	XTB26+6G	TAPPING SCREW,STEEL	1

ELECTRICAL REPLACEMENT PARTS LIST

(E51, E52)

Ref. No.	Part No.	Part Name	Remarks
		PRINTED CIRCUIT BOARD ASSEMBLY	
E51	VEPW1663A1	AC MAIN C.B.A.	■ E.S.D. RTL
E52	VEPW1664A1	AC MODULE C.B.A.	■ E.S.D. RTL
		AC MAIN C.B.A.	■
		INTEGRATED CIRCUITS	
IC01	MIP0Z24SY	IC, CMOS STANDARD LOGIC	⚠ E.S.D.
		SWITCHING CONTROL	
IC02	PC817AB	IC, LINEAR ERROR VOLTAGE DET	⚠
	OR PS2501-1W	IC, LINEAR ERROR VOLTAGE DET	⚠
IC21	UPC78N05H	IC, LINEAR +5V REGULATOR	
		TRANSISTORS	
Q01	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q21	2SA1897-TK		
Q22	2SA1897-TK		
Q23	XN1214	COMPLX CMP SI NPN CHIP	
		DIODES	
D01	S1WBA60S		⚠
D02	ERA22-08V5		
D03	MA115	CHIP	
D04	MA4270-M	ZENER 27V	
D21	F5KQ100		
D22	MA185		
D25	MA165		
		SURGE ABSORBER	
ZN01	ERZVA5D471	SURGE ABSORBER	⚠
		RESISTORS	
R01	ERG2SJ683E	METAL OXIDE 2W 68K	
R02	ERJ8GEYJ330V	MGF CHIP 1/8W 33	
R03	ERDS2TJ220	22	
R04	ERDS2TJ272	2.7K	
R06	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R07	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R08	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R22	ERX1SZGR10E	METAL FILM 1W 0.1	
R23	ERG2SJ151E	METAL OXIDE 2W 150	
R24	ERJ6GEYJ512V	MGF CHIP 1/10W 5.1K	
R25	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R26	ERJ8GEYJ151V	MGF CHIP 1/8W 150	
R27	ERJ8GEYJ151V	MGF CHIP 1/8W 150	
R29	ERJ8GEYJ151V	MGF CHIP 1/8W 150	
R30	ERJ8GEYJ151V	MGF CHIP 1/8W 150	
R31	ERJ8GEYJ3R3V	MGF CHIP 1/8W 3.3	
		RESISTOR VARIABLES	
VR21	EVMEASA00B14	VARIABLE 10K	
		CAPACITORS	
C01	ECQU2A473MG	POLYESTER +-20% 0.047	⚠
	OR ECQU2A473MGA	POLYESTER +-20% 0.047	⚠
C02	ECKATS102ME	CERAMIC +-20% 250V 1000P	⚠
C03	ECKATS102ME	CERAMIC +-20% 250V 1000P	⚠
C04	ECA2GG330Z	ELECTROLYTIC 400V 33	⚠
C05	ECQE2104KF	POLYESTER 250V 0.1	
C06	ECCZ3AZ270KG	CERAMIC 1KV 27P	
C07	ECA1HHG3R3B	ELECTROLYTIC 50V 3.3	
C08	ECA1VHG470	ELECTROLYTIC 35V 47	
C09	ECUV1H102KBN	C CHIP 50V 1000P	
C10	ECUV1C224KBN	C CHIP 16V 0.22	

(E61, E62, E63)

Ref. No.	Part No.	Part Name	Remarks
C20	EEUFC1C681L	ELECTROLYTIC 16V 680	
C21	EEUFC1C681L	ELECTROLYTIC 16V 680	
C22	ECA1CHG471B	ELECTROLYTIC 16V 470	
C23	ECA1HHG330	ELECTROLYTIC 50V 33	
C24	EEAGA1C100B	ELECTROLYTIC 16V 10	
C25	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
		COILS	
L01	ELF15N004A	LINE FILTER 0.4A 26	⚠
LZ1	VLP0137-T	FERRITE BEAD	
LZ2	VLP0056-T	FERRITE BEAD	
		PIN HEADERS	
P01	VJSW0032	AC SOCKET	⚠
P02	VJWSDQB080MM	CONNECTOR CORD W/OUT PLUG	
		FUSE & PROTECTOR	
F01	VSFW0012	FUSE 250V 2A	⚠
		TRANSFORMER	
T01	ETE27K41AY	SWITCHING TRANSFORMER	⚠
		JACKS	
JK21	VJJ0576	DC JACK SOCKET	
		MISCELLANEOUS	
E61	VSCW0948	HEAT SINK	
E62	XTB26+6G	TAPPING SCREW,STEEL	
E63	VSC4744	HEAT SINK	
		AC MODULE C.B.A.	■
		INTEGRATED CIRCUITS	
IC203	NJM2902M-TE1	IC, LINEAR COMPARATOR	
IC204	NJU7034M-TE1	IC, CMOS STANDARD LOGIC OP AMP	E.S.D.
IC205	LU5K6B84	IC, 4BIT MICROCONTROLLER	E.S.D.
		CHARGE CONTROL	
		TRANSISTORS	
Q203	XN4601	COMPLX CMP SI NPN/PNP CHIP	
		TRANSISTOR RESISTOR	
QR201	UNZZ11	CHIP	
QR203	XN1114	COMPLX CMP SI PNP CHIP	
QR205	XN1211	COMPLX CMP SI NPN CHIP	
		DIODES	
D201	LN276RPXZU	LED CHIP RED	
D202	LN376GPXV	LED CHIP GREEN	
D203	LN376GPXV	LED CHIP GREEN	
D204	LN376GPXV	LED CHIP GREEN	
D205	LN376GPXV	LED CHIP GREEN	
D206	LN376GPXV	LED CHIP GREEN	
D207	LN376GPXV	LED CHIP GREEN	
D208	DAP202KT	CHIP	
	OR MA151WA	CHIP	
	OR MA152WA	CHIP	
	OR MA152WAI	CHIP	
	OR M1MA15ZWA	CHIP	
D209	MA128	CHIP	
DZ10	MA128	CHIP	
D211	MA3068	ZENER 6.8V	
DZ12	MA3068	ZENER 6.8V	
DZ15	MA3068	ZENER 6.8V	
D216	MA3068	ZENER 6.8V	

Ref. No.	Part No.	Part Name	Remarks
		RESISTORS	
R201	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R202	ERJ6GEYJ181V	MGF CHIP 1/10W 180	
R203	ERJ6GEYJ181V	MGF CHIP 1/10W 180	
R204	ERJ6GEYJ181V	MGF CHIP 1/10W 180	
R205	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R206	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R207	VRJSD3D1202	MGF CHIP +-0.5% 1/16W 12K	
R208	VRJSD3D1302V	MGF CHIP +-0.5% 1/16W 13K	
R210	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R211	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R212	VRJSD6D1303V	MGF CHIP +-0.5% 1/10W 130K	
R213	VRJSD3D3901	MGF CHIP +-0.5% 1/16W 3.9K	
R214	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R215	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R216	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R217	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R218	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R219	ERJ3GEYJZ21V	MGF CHIP 1/16W 220	
R220	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R221	VRJSD6D1001	MGF CHIP +-0.5% 1/10W 1K	
R222	VRJSD3D2402	MGF CHIP +-0.5% 1/16W 24K	
R223	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R224	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
R225	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
R226	VRJSD6D2003V	MGF CHIP +-0.5% 1/10W 200K	
R227	VRJSD3D1003	MGF CHIP +-0.5% 1/16W 100K	
R228	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R229	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
R230	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
R231	VRJSD6D2003V	MGF CHIP +-0.5% 1/10W 200K	
R232	VRJSD3D1003	MGF CHIP +-0.5% 1/16W 100K	
R233	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R234	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R239	ERJ8GEYJ122V	MGF CHIP 1/8W 1.2K	
R240	VRJSD6D1002V	MGF CHIP +-0.5% 1/10W 10K	
R241	VRJSD6D1002V	MGF CHIP +-0.5% 1/10W 10K	
R242	ERJ3GEYJZ24V	MGF CHIP 1/16W 220K	
R243	ERJ6GEYJZ22V	MGF CHIP 1/10W 2.2K	
R244	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R245	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R246	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R249	VRJSD3D1603V	MGF CHIP +-0.5% 1/16W 160K	
R250	VRJSD3D2402	MGF CHIP +-0.5% 1/16W 24K	
R251	VRJSD6D5601	MGF CHIP +-0.5% 1/10W 5.6K	
R252	ERJ6GEYJ433V	MGF CHIP 1/10W 43K	
R253	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R254	VRJSD6DZ702V	MGF CHIP +-0.5% 1/10W 27K	
R255	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R256	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R257	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R258	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R259	ERJ3GEYJ433V	MGF CHIP 1/16W 43K	
R260	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R261	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R263	VRJSD3D1002	MGF CHIP +-0.5% 1/16W 10K	
R264	VRJSD3D1002	MGF CHIP +-0.5% 1/16W 10K	
R265	VRJSD6D7500V	MGF CHIP +-0.5% 1/10W 750	
R266	VRJSD6D3301V	MGF CHIP +-0.5% 1/10W 3.3K	
R267	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
R268	VRJSD6D4702	MGF CHIP +-0.5% 1/10W 47K	
		CAPACITORS	
C202	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C203	ECUV1E104KBN	C CHIP 25V 0.1	
C204	ECUV1E104KBN	C CHIP 25V 0.1	
C205	ECUV1E104KBN	C CHIP 25V 0.1	
C206	ECUV1E104KBN	C CHIP 25V 0.1	
C207	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C208	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C209	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C210	ECUV1C224KBN	C CHIP 16V 0.22	
C211	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C212	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C213	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C214	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

(E58)

Ref. No.	Part No.	Part Name	Remarks
C215	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C216	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C217	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C219	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C220	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C221	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C222	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C223	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C224	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C225	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C226	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C227	ECUV1E104ZFV	C CHIP +80%-20% 25V 0.1	
C228	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
		PIN HEADERS	
P202	VEK8306	BATTERY CATCHER	
		ELECTRICAL PARTS LOCATED ON CHASSIS	
E58	VMTS0144	CUSHION,POLYURETHANE	
		SUMMARY OF "E" ITEM NUMBERS REFER TO ELECTRICAL PARTS LIST FOR MODEL INFORMATION	
E51	VEPW1663A1	AC MAIN C.B.A.	RTL
E52	VEPW1664A1	AC MODULE C.B.A.	RTL
E58	VMTS0144	CUSHION,POLYURETHANE	
E61	VSCW0948	HEAT SINK	
E62	XTB26+6G	TAPPING SCREW,STEEL	
E63	VSC4744	HEAT SINK	

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